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of the South and Southwest as the Nation's Greatest Material Asset

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BANKERS SHOULD TAKE WARNING.

SENATOR Thos. J. Heflin writing under date of June 8th to the MANUFACTURERS RECORD says:

"***** I had just written to express my hearty approval of your splendid editorial on Governor Harding and his murderous deflation policy. I am going to use it in a speech in the Senate. In this important matter you are fighting a great battle in the interest of honest banking, and the whole American people. As a senator from the South, one of the sections that has suffered so dreadfully under that deflation policy, I want to express to you my appreciation and gratitude for the fight that you have made and are still making."

Writing on the same subject Mr. L. C. Younger, of Richmond, Va., district manager of the Provident Life & Trust Co., of Philadelphia, says:

"I have also read with interest your Editorial of June 8 on 'Nation Wide Propaganda to Secure Re-nomination of Governor Harding.' This covers the ground thoroughly and embodies my views, in fact, I believe 75 per cent of the business men's views in this section. There are only a few bankers that I meet with who are upholding the policy of the Federal Reserve Bank, and this has been done for a reason. These bankers work hand and glove with the Wall Street gamblers at the expense of the merchant, manufacturer and business man of this section, and they will find out that a few large cities like New York, Chicago and Boston, cannot control the finances of this country."

ONE WAY TO CURRY FAVOR.

GOVERNOR HARDING of the Federal Reserve Board says that Mr. Mellon is the greatest Secretary of the Treasury the nation has ever known. The Governor, it would appear, is leaving no stone unturned in his campaign for re-appointment. But he overlooks the fact that the greatness of Mr. Mellon comes largely from a reversal of the policies of Governor Harding.

AN EPOCH MAKING DECISION BY THE SUPREME COURT.

THE Supreme Court has sensed the inevitable. It has declared that labor unions can be sued and held in damages. The decision clarifies the atmosphere. The effort of the labor unions to place themselves outside of and beyond the law has been one of the greatest handicaps to their own work and has been largely responsible, also, for the intense and growing opposition throughout the nation to union domination.

More than thirty years ago the Honorable Chauncey F. Black of Pennsylvania, then President of the National Association of Democratic Clubs, a leader of the Democratic party and one of the foremost lawyers of the country, took the ground that the only safety for labor and capital alike would be the incorporation of labor organizations under a national law which would give them the right to make contracts under which they could sue or be sued.

It is altogether possible that out of the decision of the Supreme Court in the Coronado coal case will come a movement to carry out the plan suggested by Mr. Black for the incorporation of labor unions. This newspaper is unalterably opposed to low wages, but it is equally unalterable in its opposition to any organization of labor or capital which would seek to be above the courts and thus above all legislation.

Certain great labor organizations have vast powers over the well-being of millions of citizens. They can interrupt, if not wholly stop, the transportation machinery. They have, on occasion, tied up the shipping industry. They have, lawlessly at times, attempted to freeze the nation out. The possession of power presupposes responsibility for its employment. What men cannot do singly to destroy the property of another they ought not to be permitted to do in union, and on account of such union plead immunity. When men band themselves together for a given purpose, it is to be presumed that they are individually and collectively responsible for their acts. To plead such wide powers as the unions do and then seek to deny legal responsibility is not only cowardly but it contemplates a situation which society could not endure.

If the decision of the Supreme Court forces the situation, as we trust it will, we hope there will be enough backbone in Congress to insist that incorporation of labor unions under federal or state charters, giving them the right to sue and be sued, is essential; and that labor unions not so incorporated shall be illegal. The result would not only be to stabilize industry, since wanton strikes would not occur if the treasuries of the union were subject to payment for damages resulting, but benefits would also flow into the labor unions themselves in that they would be conducted with more fairness, regard for public opinion and general sobriety, and would also command some measure of respect, which is certainly not the case today.

Some lawyers in Washington are convinced that the Coron-

ado decision is the most far-reaching delivered by the Supreme Court in many years. They contend that under it any manufacturer who is able to show damages could sustain a suit against the United Mine Workers of America for losses resulting from the present coal strike. Should this be true, the total damages would be so large in amount as to destroy the union as an organization. Under this view of the decision, it is clear that leaders of the coal strike are treading on dangerous ground. Yet the decision of the court seems to run back for support to the very beginnings of Anglo-Saxon law which always insisted that power and responsibility for its use cannot be divorced.

COGENT REASONS FOR ADEQUATE FARM FINANCING.

A most vigorous and convincing plea in behalf of adequate and suitable financing for the farmers of the country was made by Eugene Meyer, Jr., managing director of the War Finance Corporation on Tuesday of last week at the convention of the Associated Advertising Clubs of the World, held at Milwaukee, Wis. Mr. Meyer laid particular emphasis upon the fact that agriculture is the keystone of the American economic and business structure and pointed out that when in 1920, just as farmers were beginning to harvest their crops, the price of farm products and consequently the purchasing power of farmers declined abruptly the effect on manufacturing industries being immediate, orders were canceled, plants shut down, and workmen made idle, showing the absolute dependence of business upon the farmer's buying ability.

"In spite of the all-important position of agriculture in the American economic structure," said Mr. Meyer, "our financial system has been developed around banking practices imported from countries which are chiefly commercial and industrial rather than agricultural. And many of our troubles have been caused by forcing agriculture to adjust itself to these banking practices instead of adapting our banking to the needs of our basic industry and synchronizing the financing of agriculture with the natural processes of production and consumption.

"It has been the practice to put the bulk of our crops on the market immediately after the harvest. So long as the returns were sufficient to keep the farmer in business and the hope of enhanced land values encouraged him to carry on, so long as the market had the capacity to absorb a year's supply of a farm commodity in from three to six months, the weakness of such a system was not so apparent. But the moment there was a serious disturbance in the market, with the consequent failure to distribute the carrying of the commodity all along the line from producer to consumer, there was put upon the farmers and the country banks that finance them a burden they were unable to carry.

"The collapse of 1920 was due, in no small measure, to the pressure upon the agricultural producer and the stockman to liquidate loans in a shorter time than was necessary to market his output in an orderly manner. The prices received by the farmer for his products under forced liquidation and hasty selling impaired his buying power; and this, in turn, brought about a serious decline in the demand for manufactured products, a falling off in freight movement, and a general demoralization in industry and business. The stockraiser with a short-time loan was unable to obtain the renewal he needed in order to bring his animals to maturity; so he had to sell young stock and breeding animals. The cotton grower, with a slow market taking his cotton gradually, was confronted with the necessity of meeting immediately after the picking season the bills incurred for the whole year's producing operation. The corn belt farmer, with a bumper crop, could not get credit for the purchase of feeder stock to which he could feed his corn. The outlook was very dark indeed, and one of the chief reasons was the lack of proper financing facilities for the more gradual marketing and distribution of the agricultural output. * * *

"Through thirty-three regional committees, composed of public-spirited bankers, business men, and others, serving without compensation, the War Finance Corporation has extended assistance to all branches of agriculture on a nation-wide scale. The nearly 7000 loans it has authorized to banks in the agricultural sections of the country aggregate about

\$161,000,000; the loans authorized to live stock loan companies and banks upon the security of live stock total more than \$84,000,000; and those authorized to co-operative marketing associations amount to approximately \$64,000,000. Including the advances to finance agricultural and other exports, the Corporation has approved loans aggregating more than \$395,000,000 since the spring of 1921.

"Although it has been necessary to handle this enormous volume of business within a short period, every safeguard required by sound banking practice has been adopted. Each loan to a bank is secured by carefully selected collateral, generally notes of farmers whose financial statements have been examined and approved. A substantial margin of security has been required in virtually every case. Advances to live-stock loan companies are secured by chattel mortgages upon livestock, conservatively valued and carefully inspected by experienced inspectors. Loans to co-operative marketing associations are secured by non-perishable agricultural commodities, properly warehoused, with a large margin in the value of the security.

"A local committee of bankers and business men, chosen on account of their familiarity with local banking and agricultural conditions, passes upon each application from a bank or a loan company, examines the financial statement of the applicant, and analyzes the value of the collateral submitted. If the application is approved by the Committee, it is forwarded to Washington, accompanied by a certificate, signed by at least three committee members, indicating that they have examined the financial condition of the bank or loan company and the collateral, and that, in their opinion, the loan is adequately secured. In Washington, the application is analyzed by experienced examiners, generally men with banking experience, selected because of their familiarity with agricultural and livestock credits. The legal aspects of each loan are examined by attorneys. Finally, each loan is carefully considered by the Board of directors of the Corporation. * * *

In concluding his remarks Mr. Meyer stressed the importance of establishing the farming people of the country upon a firm economic basis, saying that this would be followed by a broadening of the American market for merchandise upon a tremendous scale.

The necessity of agricultural financing along the lines suggested is apparent to everyone who has given even small attention to the reports of business. To allow the farmers to be financially stifled is to choke off wealth at its source.

A BIG MANUFACTURER'S VIEWS OF LAW BREAKERS.

THE Upson Company, a million dollar manufacturing concern, of Lockport, N. Y., in ordering a copy of the "Prohibition Question" writes:

"At the same time we would like to register our vote in favor of strict prohibition. Bootlegging is now largely confined to people who like to be known as the 'better class.' They are no better, however, than any other law breaker. A thorough enforcement of the law should be demanded and violators punished to the fullest extent regardless of class position."

The most hopeful sign in the whole situation is that business men of the country are taking an active and aggressive stand in behalf of the enforcement of law against the criminal violators of law whether they belong to the so-called 'better class' or to the so-called lower order of the bootlegger class. If they belong to the supposed 'better class' they are more criminal when they break the law than are the bootleggers, because their social standing, their business position, and their responsibilities are higher to the extent that in influence and in education they outrank the common bootlegger.

The time has come to call a spade a spade. The time has come for every man who seeks to maintain this Government against the influences at work which endanger its existence, should insist upon the punishment to the extreme of every violator of the nation's laws whether he be a rich man or a poor man, whether he be a lawyer, or a banker, or the common bootlegger from whom the lawyer or the banker may buy his illicit whiskey.

Free Trade and Financial Deflation Born in the Same School of Cheapness by Destruction.

A SERIES of well-planned attacks has been launched against the pending tariff bill. Relying on the inability of the average man, or his unwillingness to follow an economic problem through to its solution, the metropolitan press, influenced by importing interests that are large advertisers as well as by the capital to be made by pandering to elements which are forever seeking cheapness, is crying out in a loud voice that the new tariff measure would raise prices. It will be a bad thing for the consumer, they challenge.

Man earns his bread by the sweat of his brow. Normally he produces first and consumes thereafter. And this was true so long ago as when man and beast dwelt in the same habitat. In the South Seas, so they say, man need not take thought for the morrow. He has but to dip his hands into the sea and draw therefrom his food, or climb a tree to pick its fruit. But even so, he puts nothing into his mouth until he has first made the effort to get it.

Essentially, every man is a producer before he is a consumer. Consumption is the consequence of production. Production is the cause of consumption. That is the economic fact. Moreover, we have some of the most rabid free-traders in Congress lamenting that we do not furnish vast credits to Europe, for, say they, Europe is eager to consume but has not the means whereby to secure the things to consume. Yet, could they produce profitably, could they not then consume? Cheapness does not give power of consumption. Cheapness destroys buying power, which is a prerequisite to consumption.

The free trade argument holds out to consumers the hope of being able to purchase in a low market. But a low market, whether kept low by foreign importations or otherwise, means low wages. When you promise the city-dweller a shirt at half its present cost, why not be honest and tell him also that he'll have less than half as much with which to buy it?

The world has learned something of cost accounting in the last generation. The farmer has learned that he must get into consideration his overhead, depreciation, and maintenance. Moreover, the cost of upkeep of an incomparable estate is necessarily high. Here in America the humblest demands the comforts that only the richest in many countries command. He must have electric lights, his bath and running water, his means of locomotion, his schools, his periodicals, his amusements. He lives on a scale such as the masses never knew before in any other country, and know now in no other country. The American, to maintain himself in that condition to which he is accustomed, must get a comparable wage.

It is not to be assumed that any person will seriously argue that the wage scales of India are preferable to those of the United States, or that the producer in this country should be content with the profit accruing to the Chinese serf. America is a living protest against that theory. But since great sections of the earth are in the undeveloped status that makes for cheapness, and since whole populations have been and are enslaved by a system of poverty production, extending over the centuries, the only method by which the United States and other forward nations can quarantine

themselves against the infection of poverty is by tariff barriers.

The great corporations can control their own prices, within certain limits. The very magnitude of the mechanical plants they must build is their arbitrary protection against merciless competition. They must, it is true, even so come into conflict with foreign mechanical units that secure labor at trifling cost, but they are left naked to assaults from the peon. The poorest man in China, however, can scratch the soil and produce a peanut crop. Our agriculture is everywhere exposed. It is true that our ingenuity has secured labor-saving farm machinery, but there are places in the world where labor is so cheap that the human treadmill furnishes power at less cost than steam. And in cotton production, when the human hand is requisite through the whole process of production, there is scarcely any differential mechanically in favor of the American over the Egyptian.

The farm needs protection more than does any other plant in the country. But subtle voices tell the farmer the pending tariff bill will burden him. "It will make you pay more for what you buy, they say. Maybe so, but it will also make him get more for what he sells—more because he will be directly protected against the pauper crops of the East and more because prosperity in the manufacturing centers creates markets that are able to assimilate farm products at good prices. When prices were the highest ever known in the United States, the farmer enjoyed the greatest prosperity he ever knew. He suffered no hardship. He thrived in good markets.

It is whispered in Washington that some members of the Agricultural Tariff Bloc fear that the protection afforded manufacturing may be too high. Protection implies give and take. It must be a national, not a local, policy. There is nothing that will so stimulate agriculture as prosperity in manufacturing, for such prosperity increases the purchasing power of the millions of city laborers.

There is great difficulty in enacting an entirely satisfactory tariff bill. No doubt some of the schedules are not exactly what they ought to be, some being too high and some being too low, but in a catastrophic storm any port is a good one. Better to have too much protection, just now, than too little. Better to err on the side of safety than on the side of risk. Experience can show the way to proper adjustments later on, if they be needed. But of the absolute necessity of protection now there is no doubt whatever. Every great nation has admitted it. Have not the Allies themselves insisted that production costs in Germany be increased and have they not forced the Government there, in some measure, to terminate its subsidies and mitigate its merciless competition with more honest countries? That is a form of protection, but so modelled that it does not solve the situation, for what England and France and Italy might call fair wages and fair production costs would mean in this country destitution, poverty and bread lines.

The school that cries out against protection is the school that gloried in general deflation and liquidation. Its concept of prosperity is a horrible concept, based on exploitation of the masses. Its exponents dare not openly stand for such squeezing of the workers as takes place in other parts of the earth, but they attempt to bring about the identical situation indirectly. They insist that the products of despair be allowed to enter our country unimpeded and if this happens they know that sooner or later our producers must sink to the level of their competitors. All they know or want is more and more depression; but America is the antithesis of depression. It is just as much a crime, we

think, to break the American market by flooding it with cheap foreign products as it is to break the American market by withdrawals of credit and money. The effects are akin. Either policy mothers soup kitchens.

The Republican party has set itself against the cataclysmic financial deflation which the itch for cheapness brought on the country. Let it now set itself with equal determination against tariff deflation. Let not leaders be deterred by free trade threats of political disaster. Prosperity gets the votes in America. The brave course is the right course. Let President Harding and Congress quit hesitating. Let them erect the great defensive barrier that has been planned. Behind it industry will blossom and prosperity come into fruition. Unemployment will fade away and most of the economic troubles which have encompassed the nation will no longer cause anxiety. The delay in passing the measure has caused harm. Business rejoices in certainty. It wants to know where it stands. It cannot know until the tariff question has been settled.

Other conditions being what they are, the tariff is the key to prosperity. We are confident this is so. The equation reads that way. Our whole national history exposes the fact. Nor need agricultural leaders be in any doubt. Indeed, in the Emergency Tariff they have a living evidence of the healing and beneficial effects of protection. Give permanency now to general tariff protection and the results will amaze the world, so splendid will they be. We know of no issue on which the Administration could challenge the sentiment of the country with more assurance of success.

AN INTERESTING SOUTHERN INDUSTRY IN HOMESPUN WEAVING.

IT is an interesting fact, indicative of the potentialities of the South for industry, that the Biltmore Industries of Asheville, N. C., making homespun cloth, founded as they were originally by Mrs. Geo. W. Vanderbilt, and bought some years ago by Mr. F. L. Seely, has since been actively developed to a point where this is now said to be by far the largest hand-weaving industry in the world in size. This concern, which produces homespun cloth of the finest quality from wool sheared from sheep raised on the mountains and in the valleys of Carolina, now has on its books more than 30,000 individual customers who send their orders direct to the factory and their checks to Asheville in the very heart of the South. The homespun goods produced by this concern not only by their quality, but by their rare and beautiful designs and perfect workmanship, have struck the fancy of many of the great business leaders in this country. The list of customers includes many of the multi-millionaires of America, many of its statesmen, and all the way down to men of moderate means, to college men and to others.

It is an extremely interesting fact that such an industry has been developed in the very heart of the South, producing from Southern raw material a product of such rare excellence. A few months ago the writer handed to a merchant tailor, a Scotchman by birth, a sample of this homespun product. The tailor studied it carefully, pulled it yarn by yarn to pieces, and then after studying the larger yardage said: "This is a finer quality of homespun goods than any that I have in my store from England"; and for him with his intense love of all that is English this was a great admission.

The owner and creator of this industry is Mr. F. L. Seely, the proprietor of the Grove Park Inn, of Asheville, N. C., who developed the Biltmore Industries as a side issue, but it looks as though the time would soon come when in extent and importance it would far exceed the operations of that unique and wonderful hotel which Seely built, and which many architects have admired, but which all have said they would never have dared to undertake themselves.

ACTIVITY OF MANUFACTURERS AND OTHERS IN MAKING KNOWN THE ECONOMIC AND MORAL VALUE OF PROHIBITION.

MANUFACTURERS and other business men throughout the country are evincing great interest in the discussion which has been aroused by the MANUFACTURERS RECORD's recent publication of hundreds of letters on the enormous economic value of Prohibition to this country, as well as its value from the moral standpoint.

Lord Leverhulme, accounted the richest man in England and one of the greatest manufacturers of that country, was in the United States studying the Prohibition question, and promptly upon the publication of the pamphlet "The Prohibition Question Viewed From the Economic and Moral Standpoint" wired the MANUFACTURERS RECORD for a copy and wrote that he would take great pleasure in studying it on his way back across the Atlantic. More than a year ago Lord Leverhulme was quoted as saying that if England would follow America's example and adopt Prohibition it would be enabled to save enough within five years from the money now wasted on the liquor traffic to pay England's indebtedness to America.

The Keystone Driller Co., of Beaver Falls, Pa., promptly upon receipt of a circular announcing the publication of the pamphlet, wrote for 50 copies to be sent to their offices in New York and Chicago, and to their factories in Pennsylvania and Missouri. The Slab Fork Coal Co., Slab Fork, W. Va., likewise ordered 50 copies, stating that they would distribute them to people on their property who would read the pamphlet. The same company at a later date sent a list of 27 officials in various parts of its territory and ordered a copy to be sent to each one of them. The American Rolling Mill Co. of Middletown, Ohio, ordered 500 copies, and many other business men all over the country have been ordering copies in bulk for similar purposes.

Of course workers in the cause of Prohibition have been active in subscriptions all the way from one or two copies from individuals, up to hundreds of copies for organizations, while the Research Bureau of the Methodist Board of Temperance, Prohibition and Public Morals, Washington, ever alert in its campaign in behalf of Prohibition, promptly bought 10,000 copies which have been mailed by that organization to officials and ministers of that denomination and to many other people throughout the entire country interested in the great issue now before America viz.: that of Prohibition, and of saving from the ruthless hands of those who would destroy the benefits of Prohibition the power to repeal the Prohibition laws which were put into our Constitution through congressional action after half a century of active, untiring work. We wish every other organization in the country was as alert in carrying on the campaign as the Methodist Board of Temperance, ever alive to this great issue.

Let it ever be remembered, however, to the credit of the great business interests of the country, that not until railroads in the interest of safety to the traveling public forbade their train employees to drink, and not until manufacturers in the interest of saving human life by lessening accidents in their plants did all in their power to discourage drinking on the part of their employees, was National Prohibition made possible in this country.

With all possible credit to the Woman's Christian Temperance Union for its untiring work through many years, with all credit to the Prohibition party, to the Anti-Saloon League, and to organizations of all religious denominations, it should be borne in mind that superb as was the work of these associations the tremendous value of Prohibition from the economic standpoint of the saving of lives and the saving of human energy, increased efficiency, more regular employment, and better condition of families of laboring men, was

largely made known by the work of business men and of railroads.

Every man who feels the safer in travel from death by accident because of the soberness of train officials, every man who feels the safer in connection with the operation of machinery of any kind by reason of the sobriety of employees of factories, every man who loves humanity and wants to see the best possible results in the upbuilding of civilization, may well regard the success of Prohibition as of direct personal interest to him without regard to whether in the past he favored Prohibition or opposed it.

For the good to be accomplished by the widest possible distribution of the views of hundreds of business men in favor of Prohibition as published in the pamphlet "The Prohibition Question" we wish that many of the religious and business organizations as well as broad-minded business men would be as active in this work as was the Methodist Board of Temperance, Prohibition and Public Morals when it bought 10,000 copies in order to spread the gospel of Prohibition throughout the land. Many have written us, some urging that we mail copies to every newspaper in the United States, some suggesting, we send them to all religious papers in Great Britain, some to religious leaders throughout the land, but many of these suggestions are not feasible because if all were followed a limitless bank account would be needed. To the utmost extent feasible we are sending the pamphlets to all parts of the country and to Great Britain but those who are interested in this campaign can broaden the work by their individual co-operation in buying 25 to 100 copies or more and mailing to preachers, to teachers, to business men, and to women everywhere.

A CONSTRUCTION COMPANY'S VIEW ON CONSTRUCTION OUTLOOK.

MR. L. C. Wason, President of the Aberthaw Construction Company, contracting engineers of Boston, in a recent letter to the MANUFACTURERS RECORD said:

"I am impressed with the fact that there is an unmistakable and positive increase in the volume of business which looks like a return to normal, if not an activity beyond normal.

"There is an acute shortage of trained mechanics in the building industry now, and if the activity of work increases very much from what is now under way, there will be such an acute shortage as to make demands for labor that will advance the price very materially and thereby, in my opinion, upset present conditions by a return of the depression of 1920 and 1921 when building was suspended because it cost so much that the owners would not pay the price.

"My suggestion would be that a most helpful position so far as the building industry is concerned, is to advise continuing at a normal rate without regard to seasons, because mid-winter work in the North costs little more than summer work (at most 5 per cent); thereby a steady volume of work year in and year out would then be guaranteed, and the rate of wages per hour would be less than the standard of day, because they average now only about 150 to 200 working days in a year, when they live for 365.

"I would also urge the adoption of a systematic apprenticeship system for replacing the men who have ceased to work at their trades, and also building up the additional number required as the country grows. Apparently trade unionism has made the building industry unattractive to the young men who are growing up and would enter this trade if they were not subjected to such exacting, unpleasant conditions, thus the urging of the American plan of employment is another feature."

In another letter discussing the same subject Mr. Wason said:

"I am a believer that all public work, municipal, state and federal, should be planned as far ahead as possible and long in advance of its actual need, then its letting should be as a balance wheel to stabilize unemployment, and should not be done during times of activity among private investors in construction work. When there is a considerable activity among

house building and office building investors is a good time to suspend much public work which is not actually needed.

"Since writing you last our own building laborers on a near-by job have gone on a strike for an advance of 5c, or from 40c to 45c per hour, and in the city of Providence the brick layers are out on a strike for \$1.25 an hour, and are likely to get it; while in Chicago the Citizens Committee have from twenty to forty men on the road combing the country and offering \$1.65 per hour to brick-layers, fares both ways, if the men stay as long as they are wanted."

WIDESPREAD PROPAGANDA.

A recent meeting of bankers called by a former director of a Federal Reserve Bank is interestingly described in a letter to the MANUFACTURERS RECORD by a national banker, who was present. He writes us in regard to the statements made by the gentleman who called the meeting that he,—

"Laid more emphasis on the candidacy of Governor Harding for re-election than anything else, reciting the lack of qualifications of all of the members of the board except Secretary Mellon, and virtually stating that Mr. Harding was the whole thing, and it would be a great mistake not to have him re-elected. He did not ask for our opinion, but merely made this statement."

We wonder if this gentleman was expressing the views of Governor Harding when he stated that the Governor was the whole show and that nobody else in the board had the qualifications for governorship of the board except Secretary Mellon.

The tremendous effort that is being made to secure the renomination of Governor Harding is akin to the propaganda which was put out at the time the Federal Reserve Act was passed, for the appointment of Paul Warburg, a member of the German banking firm of Warburg Bros. Up to that time we had never seen such amazingly active and aggressive propaganda in behalf of any man for any place as was worked on the country in behalf of the nomination of Warburg. He was praised by the New York papers, from which other papers took their cue, as the most wonderful financial genius of the age, the only man indeed who could quite measure up to organizing the Federal Reserve System, and a man who was willing to give up an income of \$500,000 a year from his banking firm connection in order to accept \$12,000 a year as salary as a member of the Federal Reserve Board because of his boundless patriotism for this country and his desire to shape its finance. But as his patriotism was of very recent birth, since he had been naturalized only a few years, some people were skeptical at the time as to what was back of this propaganda. That the great international banking interests centering in New York were back of it was the opinion of the MANUFACTURERS RECORD then, and we have since seen no reason to change our view.

A similar propaganda is being carried on now seeking the renomination of Governor Harding. Bankers all over the country are being worked to put forth resolutions in behalf of Governor Harding. The newspapers, or at least those that can be "worked" in that way, are also being "worked," innocent of the fact as many of them are. And so the propaganda goes not only through bankers' conventions, but through other business organizations where somebody who has been seen in advance offers a resolution favoring the Federal Reserve System and the renomination of Governor Harding. These resolutions are all inspired; some Federal Reserve influence is back of all of them, and yet few people have the courage to get up on the floor and oppose such resolutions, and most people are not prepared to argue against those into whose mouths arguments have been put in behalf of Governor Harding and his Federal Reserve Board management.

The propaganda in behalf of Paul Warburg was success-

ful, but we are quite sure that it will not be successful in the case of Governor Harding; and the greater will be his fall when after the utmost power of the Federal Reserve System has been used to secure his renomination, he is left out in the cold.

A CITY OR A COUNTY MAY BE AS DISHONEST AS AN INDIVIDUAL IN NOT PAYING HONEST BILLS TO CONTRACTORS.

Smith & Whitney
Contracting Engineers
Machinery

Dallas, Texas, May 25, 1922.

Editor Manufacturers Record:

We note with interest the article in your Daily Bulletin in regard to the delays by municipalities in paying contractors.

We feel that it would be very desirable if a campaign to overcome this condition was instituted by yourselves, and we are sure that you would get ample data and support from concerns doing business with municipalities.

Our own experience has been almost parallel to that stated by the Virginia Machinery and Well Company. Our experience has been in dealing with cities, where in a very large majority of cases, the authorities do not consider it incumbent on them to respect the vendor's rights in any way. Adjustments are usually made in an arbitrary and unfair manner and funds held up because of the pique of some individual in authority, or for political, or other reasons which it is not well to mention.

We have at the present moment two lawsuits pending against municipalities in an endeavor to collect final estimates and several other cases which have not reached this acute stage, but in which reasonably large sums of money are involved and are being held up because funds which were once available for paying for our work have been diverted for other purposes and we are holding the bag. In each of these cases, we are under bond, guaranteeing to the city that they will get a square deal.

SMITH & WHITNEY.

Many contractors have just cause for complaint against the delays in payment of their bills for work done or equipment sold to counties, towns and cities. Men in public office are sometimes guilty of delays in payment of city bills which they would not for one moment countenance in the case of private individuals. It is too often the case that contractors have to take into account the uncertainty as to the fulfillment of payments at the times agreed upon in bidding on contracts and, therefore, have to allow for themselves a large margin of safety which adds to the cost of the work.

The financial honor of a county, or town or city should be just as sacred as the financial honor of any business man, and the contracts for payments for equipment or for work done for the public should be as rigidly complied with as the contractor must comply with his contract.

The statement of Messrs. Smith & Whitney in the foregoing letter that in some cases payments have been withheld because the funds once available for paying for specified work had been diverted to other purposes, indicates in these particular cases a very low order of financial morality. Public officials who divert the money from the object for which bonds were voted to other purposes are committing a breach of trust and should be held personally accountable for such acts.

There is a vast amount of municipal work of all kinds under way, highways, bridges, public buildings of every description, upon which hundreds of millions of dollars will be expended this year. This work should be watched with exceeding care on the part of all public officials, and when it has been done in accordance with specifications and contract, payments should be made on the dates specified, for

every delay dishonors the financial integrity of the community.

No community has a right to make a contract for any public work for which the money will not be definitely available at the time payment is due. No community can afford slipshod financial methods which even if not dishonest in fact, show a lack of ethics and of business judgment reflecting on the people of the community as well as on the officials. Every community which fails to keep its contracts as to the time of payment of debts incurred for public work not only serves to lower the standard of ethics of the community, but makes it impossible for contractors to bid on public work on as low a basis as they will bid for work from responsible individual firms which are known positively to keep their contracts.

Messrs. Smith and Whitney refer to the experience of the Virginia Machinery & Well Co. of Richmond, Va., a contracting firm which had pointed out some of the disadvantages they were subject to by reason of delays in the payment for public work. The letter from Smith and Whitney only serves to show that other contractors have to meet the same kind of shabby treatment. Such dishonorable methods help to break down the self-respect and integrity of every community in which they are followed.

WHERE DO THEY STAND?

At a meeting held in Baltimore recently, attended by a number of citizens, some of whom at least claim to be men of respectability, a platform was adopted in the course of which referring to the Volstead Act it was said:

"The Act is making a nation of sneaks, hypocrites and informers."

Now, of course, the distinguished gentlemen who adopted that platform must either grant that they are claiming that as a part of the nation they are themselves "becoming sneaks, hypocrites and informers," or else they are of such superior virtue that they are not thus affected, or else that they are not citizens of this country.

If they take the ground that they are citizens, then they must admit that if the country is becoming a nation of "sneaks, hypocrites and informers," they as a part of the nation are necessarily becoming what they claim the nation is becoming.

The rest of the platform is in keeping with the falsity of this statement which we have quoted for the **MANUFACTURERS RECORD** emphatically denies the truth of the assertion that this nation is becoming a nation of "sneaks, hypocrites and informers." It is true that there are many hypocrites and sneaks who are breaking the law of the land in secrecy, and thus co-operating through the purchase of bootleg whiskey with the bootleg violators of the law. But that is one passing phase of crime for which Prohibition is not responsible. Long before Prohibition became a national law crime was growing rampant in this country, and to a far greater extent than in Europe. Criminals are only utilizing the Prohibition laws for increasing their criminality and trying to curry favor with other criminal law violators by trying to throw the responsibility on the Prohibition laws.

If men desire the repeal of the Prohibition laws of the country they have a legal right to work in behalf of that movement; but they have no right to violate existing laws nor to put falsehoods in their platforms by claiming that we are "becoming a nation of sneaks, hypocrites and informers," unless perchance they are willing to say that they themselves have joined the gang of "sneaks, hypocrites and informers." If they are not willing to count themselves under such a head, what right have they to say that the rest of the people of the country are "sneaks, hypocrites and informers" while they stand aside without classing themselves under that head?

DON'T PLAY POLITICS.

THE Senate has passed a resolution requesting the Federal Reserve Bank of Atlanta to furnish full information relative to the distribution of the Glass speech by it in the State of Alabama, with the alleged intention of intimidating Senator Heflin or of bringing upon his head political reprisals as a penalty for his incisive attacks on the drastic deflation policy pursued by the Federal Reserve Board. The reply will serve to indicate just how religiously the Federal Reserve Banks are following their own injunction that banking should be kept out of politics and will help to show whether or not they have tended to follow practices of the sort that led to the dissolution of the old United States Bank and made Andrew Jackson twice President of the United States.

Senator Heflin, however, will make his fight to better advantage if he also forgets politics. He stated in the Senate, on June 3, that deflation "started when a Republican Congress in control of both Houses passed a progressive interest rate, permitting 40 per cent and 50 per cent and higher rates, and put in the hands of the Board a knife with which to cut the throat of the farmer, the merchant, and the banker and everybody else in the agricultural sections of the country. That is when it started. There was not a ripple on the surface when Wilson was in health and the Democrats were in control of both branches of Congress."

The most enthusiastic support given the progressive interest rate legislation was that from Democrats. It was an administration measure, supported by the White House. Just before his illness, President Wilson had given the railway employes formal and public notice that within 90 days he would cut the cost of living, and deflation was the plan evolved with which to do it. Merciless deflation was the pet child of Houston and Governor Harding. President Wilson supported them in every move. He not only sanctioned the destruction of the War Finance Corporation by Houston, but he vetoed the reviving act of Congress. Democratic Senators, before the 1920 election, went to the White House and implored Mr. Wilson to call off Houston and Governor Harding, force them to cease their raids on national prosperity and while there was yet time save the party from humiliating and overwhelming defeat.

Drastic deflation, which the Administration of President Harding has repudiated, was born in the household of President Wilson, it was wet-nursed by the old women of his official family and it was petted by Democrats in both Houses of Congress, who were told that the fondling was a true heir, and under the lash of Wilson's compulsion men otherwise brave and true sat silent in their seats and voiceless watched their fellow citizens being driven into promiscuous bankruptcy. Never, we take it, in all American history was there so clear an exhibit of a party, under a novel leadership, repudiating the vital principle historically established for it by Andrew Jackson. "The lady with the lamp" did not even know it was unlighted.

Senator Heflin is engaged in a hopeless battle if he seeks to exculpate his party from the responsibility which notoriously attaches to it. Better to acknowledge the blunder and false leadership and endeavor to retrieve both.

UNSHACKLE THE COUNTRY AND TURN AMERICA LOOSE.

IN the course of an address to the members of the Georgia Bar Association in annual convention at Tybee, Ga., James C. Davis, Director General of Railroads, declared himself strongly against Government ownership of the roads. He said:

"The conservative mind shrinks from the thought of public ownership of this great industry, so essential to a prosperous national existence. If railroad ownership and operation is thrown into the maelstrom of politics, all of the incentive to the success of privately owned property would depend upon political influence and pull, rather than the faithful performance of duty and controlling ability.

"No greater mistake, in my judgment, could possibly be made than to have the national government permanently take over and operate the great railroad transportation systems of this land."

Continuing, the Director General said that private ownership and operation of railroads is on trial and making possibly what is its last stand, but that up to this time there has not been a fair trial under anything like normal conditions of the provisions contained in the Transportation Act of 1920.

Director General Davis is eminently correct in his assertion that no greater mistake could be made than to have the Government take over and operate our railroads. There has already been entirely too much supervision and control through the Interstate Commerce Commission, which should never have been created, and the existence of which has fully proved time and again the accuracy of the predictions of the MANUFACTURERS RECORD made years and years ago as to the evils that would be sure to follow the establishment of any sort of Government railroad control at Washington, as the courts already possessed ample authority to deal with transportation questions as they affected the public weal.

Mr. E. L. Thomas, President of the Thomas Grate Bar Company, Birmingham, writing to the MANUFACTURERS RECORD, says:

"The best article you have written in a long, long time was the one on the abolition of the Interstate Commerce Commission, the War Labor Board and the adjourning of Congress and the elimination of so much politics from our railroads and business.

"If such a condition could be brought about, heaven only knows how this country would go to doing business over night.

"We hope you are so seriously in earnest that you will not let up until same is accomplished, for all of this stuff is the rottenness of socialism."

The MANUFACTURERS RECORD is in earnest on this issue or otherwise it would not have opposed as it did from the day the Interstate Commerce Commission asked for power to make rates, the whole operation of the Commission. We have had too many laws, too much regulation which has meant destruction of initiative and American self-reliance and power to do things.

As a nation we are hamstrung by commissions to regulate everything from the birth of a baby to the running of a railroad and the management of financial and industrial interests.

Break the chains that bind us and turn America loose, should be the universal demand of the American people.

The purpose of a new investigation, to be conducted in the Birmingham, Ala., district by the Bureau of Mines, is to determine to what extent the dip-compass can be used in the location of non-magnetic deposits, particularly hematite and brown ores. The investigation involves the determination of constants to be used in correcting results obtained in the field. W. R. Crane, district mining engineer, is in charge of the work.

More Light on Mexico.

By COURTENAY DE KALB.

At the moment when recognition of Mexico by our Government is impending, the appearance of a painstaking analysis of conditions in that country by a trained economist is important. "Mexico and Its Reconstruction" by Dr. Chester Lloyd Jones (D. Appleton and Company), is a serious attempt to explain the bases on which Mexico may build for the future and the relations that must be observed on both sides of the Rio Grande to ensure peace and progress.

"Without a strong and safe United States, Mexico cannot be strong nor can its independence be assured. If Mexico is a weak and hostile nation, the United States is not safe, and an essential of the foreign policy of all American states is rendered less secure." This conclusion of Dr. Jones all thinking citizens of this country must approve. Had the mutual interdependence of the two nations been comprehended by former Administrations at Washington much rancor would have been avoided and the reconstruction of Mexico might have become an accomplished fact some years earlier. The type of American who would annex Mexico, and that other type which would leave Mexico to work out her own salvation without our friendly co-operation, are equally scored in this book. Something might have been said about another type that ventured to impose our will in directing the internal policies of our neighbor, the fruit of which was an intensified hatred of America by the Mexicans. We must learn to play the diplomatic game according to the rules. That is the seed-bed of international friendliness. Dr. Jones has closely analyzed the labor question in Mexico, and this part of the book will be especially useful to every intending investor in that Republic.

We may not agree with Dr. Jones' ethnic argument, for in effect no race has ever so thoroughly imposed its customs and mental habits upon alien peoples as has the Spanish. The Indian blood is dominant, but the Iberian point of view overmasters it, not only in Mexico but in all Spanish America. Out of this we are more hopeful that a re-invigorated ascendant Spanish type of mind will issue than is the author of this book.

On the other hand, we fully agree that "coming back to work in time of peace, in many parts of Mexico, will necessitate painful sacrifice on the part of the laborer of many of the exceptional conditions he enjoyed during the upheaval of the revolution. It is equally clear, however, that the low wage-level of the pre-revolutionary days has gone forever." The Mexico of Porfirio Diaz has indeed disappeared, and the conditions of life that characterized it will not return. The outburst of radicalism, of which the absurd Constitution of Querétaro is the documentary expression, is inherently less dangerous than newspaper writers would have us believe. Mexicans are by nature law abiding; no other people so promptly take their disputes into court. The litigious habit argues at least a temperamental respect for law and a belief in the possibility of obtaining justice. That is at the antipodes from radicalism, which at bottom is individualistic, despite its proclamation of collective right. Back of it, in theory, is the abolition or the subservience of government to the individual, which means anarchy. This is not the ideal of the Mexican reformers. It was not even the ideal of Zapata.

The Mexicans are essentially conservatives, and only a relatively small minority has taken seriously the doctrines taught them by Steffens, Gompers, the Magón brothers, and an army of German and Russian agents of evil. The radical minority makes a great noise, but its influence is easily overcome by those who would apply in practice the spirit of reform for which the Mexican people plead. That is founded in an idealistic yearning toward fraternal relations between master and man, as set forth clearly and concisely in a recent novel of the people and for the people written by J. Ascensión

Reyes, entitled "Heraclio Bernal" (Lozano, San Antonio, Texas). An understanding of this idealism, which is remote from socialism and bolshevism, and which is cherished by the majority of the Mexican working-people, is essential to the harmonious conduct of enterprises in Mexico.

The fundamental economic and social conditions as elucidated by Dr. Jones should help to give to Americans a safe and sane conception of how to utilize Mexican opportunities and to control Mexican labor for the common interest of all concerned. Incidentally Dr. Jones reviews the conflict between the Mexican government and the oil companies, bringing out clearly the retroactive feature of the new constitutional provision and the hardship that it worked. The new Constitution, however, is the subject of jest even among the Mexicans themselves because of its many ridiculous features, and they dub it the Almodrote of Querétaro. The conflicts that it has occasioned with the oil companies constitute a problem that can be solved after recognition has been granted, with the restoration of amity through a new treaty of commerce which would then be in order. The guarantees accorded against retroactive legislation under the fundamental code of Mexico will undoubtedly be confirmed after the heat of discord has been reduced by prudent diplomacy. This is something to which we may look forward when we have again a plenipotentiary in the Mexican capital.

Higher Prices for Texas Wool.

San Angelo, Texas, June 6—[Special.]—Unusual competition of buyers of 12-month long wool and 8-month short wool is being shown in the sales conducted here by Wool Growers Central Storage Company. Sales of 77,000 pounds of long wool and 125,000 pounds of short wool are reported, but beyond the statement that the prices were almost double those of last year the figures were not divulged. At the first week's sale purchases were made as follows:

Charles F. Angell for Hallowell, Jones & Donald of Boston, 47,000 pounds; John S. Allison of San Angelo and A. R. Flanders of Boston for Adams & Leland of Boston, 95,000 pounds; Harry D. Allen of Philadelphia for Charles J. Webb Sons Company of that city, 20,000 pounds; Charles Bonham for the Boynton Scouring Mill Company of Chicago, 18,000 pounds; Charles Farquhar for Mangur & Avery of Boston, 12,600 pounds; Caldwell Palmer of San Antonio for Jeremiah Williams & Co. of Boston, 25,000 pounds; S. D. Rainier of Llano for Farnsworth, Stephenson & Co., of Boston, 52,000 pounds, and J. D. Silberman for S. Silberman & Son of Chicago, 7400 pounds. Allen C. Emery for Studley & Emery of Boston bought the 125,000 pounds of short eight month fleece.

Cotton Spindles and Looms in Lancashire.

The Department of Commerce states that the number of spindles for spinning and doubling in Lancashire, England, is 59,712,303, against 60,053,246 a year ago. The number of looms is given as 799,000, as compared with 790,399 at the same time last year. During the last ten years there has not been much change in the amount of cotton machinery in Lancashire. Oldham is the biggest spinning center with 17,168,050 spindles, but compared with a year ago there is a decrease of 150,126 spindles. Next comes Bolton with 7,512,731 spindles, an increase since last year of 57,208 spindles. The Manchester area has 3,505,918 spindles, an increase of 22,686 since a year ago.

With regard to weaving the largest center is Burnley, with 110,837 looms, an increase of 897 since last year. Blackburn comes next with 95,391 looms, an increase of 911; followed by Preston and district with 73,866 looms, an increase of 2230; Nelson and district with 60,746 looms, a decrease of 195; Accrington and district, 40,197 looms, an increase of 1047; and Darwen with 40,014 looms, an increase of 1304.

The St. Lawrence Seaway and Its Advantages to This Country.

By WILLIAM L. SAUNDERS, Chairman, Ingersoll-Rand Company, New York, and life member American Society of Civil Engineers; Past President, American Institute of Mining and Metallurgical Engineers; Past President, American Manufacturers Export Association.

The so-called St. Lawrence seaway is a proposition now seriously entertained, by which ocean ships may be provided with deep water navigation from the Atlantic Ocean through the Great Lakes up to the head waters at Duluth. The depth proposed is from 25 to 30 feet. The cost, according to the figures given in a report of an international board of engineers, is in round numbers \$270,000,000. These figures are based upon material and labor costs 80 per cent above prewar prices and they include a hydro-electric power plant delivering about 1,700,000 horse power, this being a portion only of the potential power which is estimated at between five and six million horse power.

To the above figures should be added about \$35,000,000 which has been estimated as the cost of deepening the Detroit and St. Clair Rivers, Lake St. Clair, the Sault Ste. Marie and some work at the western end of Lake Erie in Livingston Channel, which is now 22 feet deep.

The distance from Duluth to the sea is about 2500 miles. Only about 5 per cent of this distance is involved in this canalization proposition. The balance is open water navigation in the Great Lakes, except only in the passage of the Detroit and St. Clair Rivers, the Soo and the Welland Canal.

The Welland Canal connects Lake Erie with Lake Ontario, a distance of 25 miles. The Canadian Government is now spending some \$60,000,000 to provide a depth of from 25 to 30 feet in this canal.

It is an interesting and important fact in connection with this project to note that no toll charges are made or proposed throughout the St. Lawrence seaway. The passage through the Soo canals is in American territory, now free of tolls.

It will be seen that the major part of the work, so far as the expense is concerned, in this project is involved in the St. Lawrence River, over a distance of 116 miles from the Galops Rapids in the western part of the river to ocean navigation near Montreal. The difference in elevation or drop over this distance is 220 feet.

It will be evident to engineers that because of these natural conditions the best way to get deep water in the St. Lawrence is to build dams high enough to flood the Rapids. In the engineers' report it is proposed to build two or three dams, and in doing this deep water navigation will be established over the entire distance of 116 miles. In order to get around these dams it is necessary to construct canals with locks. These canals and locks cover a distance of only about 33 miles, and it is in this distance that the largest amount of excavation and masonry work is required.

It will be readily seen how similar this is to the building of the Panama Canal. This canal is 50 miles long. At least two-thirds of it was made by building the Gatun Dam, which flooded the territory behind it, making a large open lake known as Lake Gatun. At both the Atlantic and Pacific terminals of this lake are canals and locks (six in number). In the St. Lawrence it is proposed to build seven locks. Locks and dams require substantial rock foundations. Nature has provided this to an unusual degree in the St. Lawrence River.

I venture the statement that there has never been proposed a project so simple in its execution, so sound in its

economic possibilities, and so far reaching in its consequences, as this one. If you will lay a straight edge upon the map along the line of the St. Lawrence River you will see that it points directly to Liverpool, the market for most of the grain products of the United States. Almost in the same latitude are the Scandinavian countries, also large markets for our products. The distance from Duluth to Liverpool by way of the St. Lawrence is about 5000 miles. That distance is 500 miles greater by way of the New York Barge Canal and the Hudson River, 450 miles greater by way of railroad transportation from Buffalo to New York. If it is true that the best engineering is that which accomplishes a result in the most economical manner surely it is good engineering to save between 450 and 500 miles in distance over a journey of 5000 miles. Furthermore, the record of experience shows that for every dollar which a producer in the West pays to ship products from Duluth, or other western ports, to Liverpool, more than 40 per cent (or 40 cents) is consumed in that short territory of 450 to 500 miles between Buffalo and New York. This expense is due partly to unloading and reloading charges commonly known as breaking bulk and partly to the high cost of transportation, which must of necessity be greater on railroads and canals when compared with deep water navigation.

The relative cost of rail and ocean carriage is approximately in the ratio of 100 for rail and 10 for ocean freights. This ratio is not exact, for all conditions of rail or water borne carriage. Cargo carried in small, slow vessels over a long distance, as in canals or winding streams, might cost as much as rail freight, while the freight charges of the large lake bulk carriers now traversing the Great Lakes is but 6 or 7 per cent of the cost of rail freight. These bulk carriers in the lakes provide the cheapest form of transportation in the world.

It is interesting in this connection to note that where one dollar is spent to haul a ton of freight by road wagon from New York to Newark, N. J., that dollar will haul the same freight as far as Plainfield, N. J. (24 miles) over good roads and by motor truck. It will haul the same freight as far as Baltimore by steam railroads. It will haul this freight from New York to Washington, D. C. and back through canals and inland waterways, and it will haul it across the Atlantic Ocean by ships.

Every time a producer in the West ships two carloads of grain to Liverpool, more than one carload is absorbed in transportation charges.

Copper and zinc are now being shipped from Montana 800 miles by rail to the Pacific, thence through the Panama Canal and over a distance of 7000 miles by sea to Perth Amboy, N. J., at a cost which has been estimated at \$.5 a ton less than by an all rail haul East, covering a distance of only 2500 miles.

It has been estimated that wheat from the Argentine is now transported 7000 miles by sea to our Atlantic ports at an expense of 10 cents a bushel less than the cost of shipping grain from Kansas or the Dakotas by rail to the same port, this latter being only about one-fifth of the distance. The distance from Buffalo to Liverpool by way of the St. Lawrence is about the same as the distance from New York Harbor to Liverpool; that is, a little over 3100

miles. It is evident, therefore, that to break bulk at Buffalo and carry the freight to New York by canal over a period of a couple of weeks' duration and a distance of 500 miles, or to carry it by railroad over a distance of 450 miles, almost doubles the time of delivery and almost doubles the freight charge which should be incurred if shipped from Buffalo to Liverpool direct. The St. Lawrence route is the hypotenuse of a triangle. The Buffalo-New York route runs over the other two sides of this triangle.

All navigable waters are under Federal control. The courts have decided that they should be used primarily for navigation purposes; that if water powers or other advantages develop in the use of these navigable waters they are to be considered as by-products. We may, therefore, dismiss the contention that has been put forth that the St. Lawrence should be improved by private capital as a water power project.

It so happens that Nature has provided in the St. Lawrence River conditions that are admirably suited for the development of hydraulic power of enormous volume. The chief difficulty in the utilization of water powers is in getting sufficient volume of water. Volume is the main thing. Pressure or head is important but, as in the case of a boiler, better practical results are obtained through volume of steam rather than high pressure. Most water powers are subject to seasonal conditions. There is a dry season when independent generating plants must be called upon to keep the works going. Not so with the St. Lawrence. Fed as it is by that large water table tributary to the Great Lakes there is at all times and at all seasons a tremendous volume of water passing to the sea. Navigation is interfered with during a few months in the winter season; but water power goes on indefinitely. The estimated flow is 241,000 cubic feet per second.

In order to visualize what this means let us picture a river section equal in width to the Hudson at Cortlandt Street, New York, with a depth of 40 feet and a current of moderate speed. This represents the St. Lawrence. This large volume of water over a distance of only 116 miles has a fall of 220 feet.

Electric power may now be economically transmitted and used at high voltage over a distance of 500 miles. As has previously been stated, the St. Lawrence River has a potential capacity to deliver between five and six million horse power. This might be distributed all over New England and New York, furnishing power for all of the industries and most of the railroads.

Just as deep water transportation is the cheapest transportation in the world, so is hydraulic electric power the cheapest power in the world.

In a report following a long study, recently issued by the Department of the Interior and the United States Geological Survey, entitled "A Superpower System for the Region Between Boston and Washington," by W. S. Murray and others, the following statements are made:

"It is believed from consultation with the best informed authorities on these two projects (The St. Lawrence and Niagara Falls power developments) that power could be purchased from them at not more than \$20. per horsepower-year delivered at their bus bars."

Then follows a comparison between steam and hydro-electric power delivered in New England and New York, concluding as follows:

"The development of the St. Lawrence River would therefore save \$11,328,000 annually to these geographic divisions. The total investment required for equipment to use the St. Lawrence purchased power would be \$24,826,000 less than that required if new steam-electric plants were constructed to supply this excess energy. In the Eastern New England, Western New England and Mohawk-Hudson divisions, which lie farthest from the coal fields, the cost of power generated by steam-electric plants is inherently high, and therefore the St. Lawrence development will be

of very great benefit to these divisions."

It has been estimated that the use of all the potential hydro-electric power of the St. Lawrence would effect a saving in coal of fifty million tons annually. No one dreams of utilizing this power to its full measure except over a period of a great many years. It takes time and money to convert power plants from existing conditions to those which offer greater economies. But once the St. Lawrence is improved as a seaway the development of its power possibilities, together with that of Niagara, should take place gradually and economically. New enterprises would be encouraged to locate in New England and New York because of available cheap power.

As to economies of ship transportation through this route, it may be said in a general way that there is no physical difference, so far as navigation is concerned, between the St. Lawrence seaway as proposed and any other large body of water connected with the sea. Ocean ships traverse the Mediterranean, which is in some respects similar to the St. Lawrence, having no tides. Ocean ships go up the Amazon, a distance of 2000 miles. Ocean ships go through the locks and over the waters of Lake Gatun at Panama. The Bethlehem Steel Company has recently built a 20,000 ton ore-oil carrier, to be used in Chilean ore trade. Wherein does the St. Lawrence seaway differ? It is true that ice barriers form during three or four months of the year, but the winter season is not the active season in transporting raw materials about the Lakes or in shipping grain to Europe. There is much sea navigation now in the Great Lakes. The barrier to the sea is at present the old Well-Canal and the Rapids of the St. Lawrence. Lake boats are subject to much rough weather, in Lake Superior particularly, which at times is almost as turbulent as the Atlantic. These boats furnish the cheapest means of transportation in the world, but nobody expects them to go to sea. The vast bulk of trade in transportation about the Lakes (which is now the largest in the world) comprises raw materials and other products used in our domestic markets. This should continue in increasing volume, even if only 10 per cent of it found access to the sea, because of the development of great interior industrial centers following cheap transportation and cheap power.

Most of the important ports on the Great Lakes have now a depth of water of from 20 to 21 feet. The expense which might be incurred in deepening these ports to from 25 to 30 feet is comparatively small and should be effected largely by the communities benefitted. But 20 to 21 feet of water is sufficient depth for a large proportion of freight carriers now used throughout the world. According to Lloyd's Register more than 80 per cent of all freight ships in the world have a draught under and up to 25 feet.

Ships will follow any route where navigation is deep enough and safe enough and where trade may be found.

The Great Lakes are amply provided with shipyards which might build special large ocean going bulk carriers if found desirable.

Fifty per cent of the world's commerce before the War was carried in British vessels. This supremacy was attained through wise methods of construction and operation of ships because of the large cargo, the bulk of it being iron and iron products and coal which was there ready for transportation. Seventy-five million tons of coal were annually shipped from British ports. The population tributary to the region of the Great Lakes is as large as the population of England, but the potential manufacturing producing and shipping advantages of the Great Lakes region are enormously greater. We have the fundamental materials of trade and commerce, namely, iron, copper, lead and zinc, gold and silver, coal, petroleum and timber, grain, cattle, sheep and hogs.

There is produced annually, in the territory tributary to

the Great Lakes, of our surplus wheat 75 per cent, corn 65 per cent, flax 100 per cent, iron 85 per cent, copper 39 per cent, zinc 74 per cent, lead 46 per cent and 50 per cent of potatoes and sugar beets, 40 per cent of the value of our manufacturers, 50 per cent of the cattle and 70 per cent of the measured coal reserve.

West of Lake Superior is the great central plain of North America. Of the four billion bushels of grain produced annually in Canada and the United States 80 per cent are from this area. Minnesota is the great flour milling state and the source of our largest production of iron ore. Fifty million tons of ore are shipped down the Lake annually. About two tons or less of this Minnesota ore are required to make a ton of pig iron. German and English ores require $2\frac{1}{2}$ tons per ton of pig iron. The copper of Butte, Anaconda and Calumet will find their outlet to the seaboard down the Lakes. Lake Michigan is the natural economic outlet for the agricultural and industrial products of Wisconsin, Illinois, Indiana, Iowa, Missouri, Colorado, Nebraska, Oklahoma, Kansas and for the Canadian northwest, the Dakotas, Montana and Wyoming.

About half the population of the United States is resident in territories tributary to the Great Lakes. Chicago is one of the world's greatest grain ports with a tributary population of some twenty-five million people and the center of the great railway trunk lines from the north, south, east, west and northwest. The agricultural production of this territory is about eight billion dollars annually, the mineral production more than one billion and a production from general industry of seven billions.

At Detroit there is annually a rail movement of 25,000,000 tons. About 6,000,000 tons go to seaboard points. It has been estimated that Detroit would absorb 500,000 tons of foreign products, if the restrictions due to the expense of railway carriage from the seaboard were removed. Approximately 80,000,000 tons of freight pass the Detroit River annually.

The proximity of America's great steel industries to the Lakes will permit of large economies in the transportation of their products by the St. Lawrence route to Atlantic ports of the United States and to foreign countries. Pennsylvania and New York, with territories bordering on the Lakes, are placed at an advantage over New England in the shipment of raw materials for manufacturing purposes and in the distribution of manufactured goods. The St. Lawrence seaway would give New England cheap water transportation for raw materials such as food products, coal and iron, with an opportunity to distribute its manufactured goods, such as textiles, shoes, etc., to that great territory of the Middle West tributary to the Great Lakes. The distance to New England ports is about 2000 miles by water and only about a third of that distance by rail, yet the cost of transportation by sea should be at the rate of 3 miles per ton mile or \$6. per ton as against $1\frac{1}{4}$ cents per ton mile by rail. Where it costs one dollar to haul by water from Chicago to Boston it will cost three dollars by rail. Mr. H. I. Harriman has estimated that on the present basis of consumption the St. Lawrence seaway would effect a saving to New England of \$15,000,000 a year.

If copper from Montana can be, as it is, shipped west to the Pacific through the Panama Canal and up to New Jersey at a price less than railway carriage east, and if the products of Argentina may be transported to eastern ports cheaper than by rail transportation across the continent, it seems reasonable to expect that the St. Lawrence seaway will be a means by which New England industries may receive great benefits in transportation economies.

A project that is economically sound, especially when it involves transportation of goods on a large scale, is sure to benefit the people as a whole in all the territories affected.

A ship channel which connects two territories, in each one of which there is a large production of goods, is a wise project and is sure to prevail in the end.

The great producing areas of America, so far as raw materials are concerned, are situated a thousand miles from tidewater. In this respect we are handicapped in competition with Argentina, India, Russia and other territories, where the production is at or near tidewater.

Cheap transportation through the Great Lakes and not cheap mining of ore is the prime reason why America leads the world in economic steel production. England obtained her supremacy in coal production because her mines were at tidewater. In this respect American mines are at a disadvantage.

The outlet to the St. Lawrence seaway is in Canadian territory. Much of the work proposed is also in Canadian territory, but the waters of the Great Lakes are in international territory. A ship channel leading to the sea is of advantage as a means of transportation through the territory. What does it matter that the Suez Canal should run through the deserts of Africa and Asia? What does it matter that the Panama Canal should run through the swamps of Panama? The advantage is in getting through. Producers at both ends are benefited more largely than those on the borders of the channel.

For more than one hundred years there has been perfect peace between Canada and the United States. We have recently listened to propositions for proportioning armaments among nations. That proportion was fixed more than one hundred years ago by Canada and the United States at 0 to 0. Furthermore the way to keep peace with individuals, among corporations and among nations is to cultivate mutual association and interests as against competition and conflict.

An International Joint Commission has for a long period of time been investigating the St. Lawrence seaway project. This Commission is composed of equal representatives from Canada and the United States. It has unanimously recommended the St. Lawrence seaway, advising that the cost of all navigation works be apportioned between the two countries on the basis of the benefits each will receive from the new waterways that during the period ending five years after the completion of the works the ratio fixing the amount chargeable to each country shall be determined upon certain known factors, such as the developed resources and foreign and coastwise trade of each country within the territory economically tributary to the waterway. That ratio to be adjusted every five years thereafter and to be based upon the freight tonnage of each country actually using the waterway during the previous five year period. That the cost of navigation works for the combined use of navigation and power over and above the cost of works necessary for navigation alone, should be apportioned equally between the two countries.

This Commission further reports as follows:

"The evidence seems to show that existing depths in the Detroit and St. Clair Rivers, Lake St. Clair and the St. Mary's River, as well as in most of the principal harbors of the Great Lakes, would accommodate a large proportion of the vessels now operating on the high seas."

In the report of this Commission is the following statement:

"The Commission believes that while it is physically practicable to bring both railroad and terminals up to the point where they could handle the traffic of the United States without serious congestion, the expense involved would be enormous, amounting, in the opinion of experienced railroad executives, to \$2,000,000,000 per annum over a series of years, and it is perhaps questionable if in the end the relief afforded would be comparable to that promised by the creation of an all-water route from the interior of the continent to the Atlantic seaboard.

"Of the alternative routes suggested the New York State

Barge Canal, the projected Oswego ship canal, the Richelieu and Lake Champlain route, the proposed Georgian Bay canal, the Hudson Bay route, the Mississippi route and the Pacific and Panama Canal route, the commission is convinced that none of them offer the advantages of the St. Lawrence route either as a means of relief for the acute transportation situation or as a channel for the carriage of ocean borne commodities."

Eighteen western states have by legislative enactment and executive order endorsed the St. Lawrence seaway. It has also the approval of the Mississippi Valley Association; it has the approval of former Secretary of Commerce Redfield; the present Secretary Mr. Hoover has endorsed it with the statement that it is the greatest single step in the direction of national efficiency. Its practicability from a shipping standpoint is endorsed by Mr. Magnus Swensen, President of the Norwegian-American Line, by Mr. Julius H. Barnes, of the U. S. Grain Corporation whose company ships 40 per cent of all the wheat sent to Europe. Mr. Barnes has figured that it will add a value equal to 5 cents a bushel to every grain produced in the West.

A project like this, which will make seaports along thousands of miles of American territory and which at the same time will furnish to New England and other Eastern states cheap power, is surely worthy of our earnest consideration and interest. It may be carried out without burden to the people through the issuance of bonds endorsed by the United States and Canada and sold in the markets of the world.

Three Company Steel Merger Plan Stated.

The plan for the merger of the Midvale Steel & Ordnance Co., the Inland Steel Co. and the Republic Iron & Steel Co. is published elsewhere in this issue over the names of W. E. Corey, chairman of Midvale; L. E. Block, chairman of Inland, and Jno. A. Topping, chairman of Republic, and while it is stated that the plan as announced is subject to changes to meet conditions and circumstances and the opinion of counsel, it is based upon the reports of public accountants concerning the properties and upon other documents and data, which are believed to be reliable and correct.

It is proposed that the Midvale and the Inland companies will first be consolidated, adopting the name North American Steel Corporation, and this new company will then acquire, subject to its liabilities, the assets of the Republic Company. But before the unification of the properties Midvale, will, as previously reported, put its Nicetown, Pa. plant and certain assets and liabilities connected with the operation of it, in a separate corporation, the stock of which will be distributed pro rata among the stockholders of the Midvale company, and the separate company will continue thereafter as a separate enterprise for manufacturing ordnance, armor plate and special steel products.

The issued capital of the North American Steel Corporation is to consist of bonds and other fixed charge obligations, \$79,173,500; new 7 per cent cumulative preferred stock of \$100 par value per share, \$50,331,475; new common stock without par value, 3,309,612 shares. Of the preferred shares \$25,000,000 par will be used to provide in part for acquiring the Republic company and the remainder is to be issued and the proceeds thereof (\$24,064,901) are to be paid to the stockholders of the Inland company. The common stock will be distributed thus: To Midvale stockholders, 1,500,000 shares; to provide in part for acquiring the Republic company, 510,000 shares; to Inland shareholders, 709,281 shares; to be sold for cash 590,331 shares. Details of the distribution are given in the formal announcement.

Reports from the Curb Market in New York show that the common shares were dealt in last week as "when issued," between 46 $\frac{1}{4}$ and 49 $\frac{1}{4}$.

It is intended to form a syndicate to provide cash require-

ments including \$20,000,000 additional cash working capital, making the total working capital more than \$100,000,000.

The plan contemplates selling to Thomas L. Chadbourne, attorney, who was active in promoting the plan, 25,500 shares of common stock at \$10 per share and to Kuhn, Loeb & Co., who have agreed to act as bankers for the plan, 59,500 shares of common stock also at \$10 per share.

It is estimated that the fixed charge of the consolidated company will total \$3,913,085 a year and the preferred dividends to \$3,523,203 a year. The total rated ingot capacity is 5,249,000 tons a year.

In conclusion it is stated that some of the essential reasons for merging the companies are increased economy, better distribution, stronger management, etc.

Preliminary Work Begins on \$3,000,000 Reclamation Project.

Red Bluff, N. M., June 10—[Special].—With the firing of the first shot of dynamite to make ready for the construction of a giant dam across the Pecos River at this point there was started a few days ago another land reclamation project which will bring under irrigation more than one hundred thousand acres in New Mexico and Texas. The dam and canal system will cost approximately \$3,000,000 and the project will be built and operated under the joint direction of the United States Reclamation Service and the Pecos Valley Water Users' Association.

It is stated that the eight independent irrigation enterprises now operating in the valley of the Pecos River between Red Bluff and Pecos will be merged into the new project. The reservoir to be formed by the dam will contain 250,000 acre feet of water. The site is about five miles north of the New Mexico-Texas line and practically all of the land to be reclaimed is in Texas. Much of the irrigable area borders the Pecos River division of the Atchison, Topeka & Santa Fe Railroad, which will afford a transportation outlet for the variety of products that are to be grown.

Texas Grain Sorghum Association Organized.

Amarillo, Tex., June 10—[Special].—What is regarded as an important step toward gaining recognition of maize and other sorghum grains in the markets of the country has just been taken here by the organization of the Texas Grain Sorghum Association under the direction of the Texas Farm Bureau Federation. One of its chief purposes is to contract for the sale of these grains through pooling arrangements of the growers. D. P. McCalib, the director, expressed the belief that not less than 5,000,000 bushels of maize, feterita, kafir corn and sorghum cane would be marketed this season through the Association. The minimum amount to be contracted for is 500,000 bushels. L. S. Palmer of Canadian, Tex., was elected president; John R. McDaniels of Amarillo, vice-president; Mr. McCalib, secretary.

Number and Value of Building Permits in Washington Break All Previous Records.

Washington, June 5—[Special].—All records for the number and value of building permits issued in this city were surpassed during May, according to the report of John P. Healy, inspector. The normal building program together with the efforts exerted to make up for operations halted by the war account for the big activity now in progress. Permits were granted for 1107 operations at a total cost of \$5,036,285. Of this number 295 were for dwellings to cost \$2,310,075. Permits for the erection of 8 apartment houses to cost \$1,535,000 were granted. Of the total number of buildings 320 will be of brick, 12 of tile, 25 of concrete and 110 frame buildings.

Coöperative Marketing of Cotton and Its Probable Influence.

By CARL WILLIAMS, President, American Cotton Growers' Exchange.

Starting in Oklahoma, the growers co-operative marketing idea applied to cotton, has spread so rapidly throughout the South that today members of associations in the American Cotton Growers' Exchange are said to be ready to deliver two and one-half million bales of cotton to co-operative marketing associations, out of next year's crop.

The war taught farmers to think more intelligently than ever before, concerning economic questions and the post war depression brought with it a realization of the need for immediate action. The result has been a great wave of co-operative marketing activity, the like of which has never before been witnessed in any country.

Perhaps the most significant of the many co-operative movements, because it has apparently gone farthest in the shortest time, is that surrounding cotton. Cotton has been and still largely is a city man's crop. Cotton farming has been synonymous with poverty. It has retarded social and economic development in farm life. It has been at once the South's greatest asset and its greatest curse. While it has added immeasurably to the nation's wealth, the system under which cotton is grown and sold has kept the cotton farmer himself in a position where his own best efforts resulted merely in the exchange of a year's work for a cancelled crop mortgage. In an attempt to solve some of the evil conditions of cotton marketing and thus to improve the economic condition of cotton farming, the Oklahoma Cotton Growers' Association was formed in 1921. Founded on the Danish system of co-operative marketing and on the successful methods of some of the Pacific Coast organizations, the Oklahoma Plan for cotton, first put on paper two years ago, has spread over the South like a prairie fire on the heels of a strong wind.

Texas, Mississippi and Arizona closely followed Oklahoma and this year these four states marketed their cotton through State sales agencies. North Carolina, South Carolina, Georgia, Alabama and Arkansas have completed sign-up campaigns and will be ready to join the American Cotton Growers' Exchange next season.

These organizations are all alike in both form and substance. Their principles include long-term, iron-clad contracts with the grower, covering all of the crop produced. They provide a penalty for non-delivery of the product. They have adopted the principle of the internal pool, whereby every grower receives exactly the same price for the same quantity and quality, regardless of time of delivery or of sale. They provide for the employment of experts in marketing who shall grade, class and sell the product of the farmer for his benefit, and who shall work with him instead of against him in the cotton markets of the world.

In order to secure stability, size and volume of business these organizations are formed on the largest legal limit, which is the State itself, and the State organizations are correlated in a national overhead agency, known as the American Cotton Growers' Exchange, in such a way as to co-operate fully and completely with the laws of both States and nation.

These organizations, even in the short period of their existence have demonstrated a number of vital facts about co-operative marketing. First: They have proved that average farmers will sign and abide by long-term, iron-clad contracts. More than 125,000 cotton farmers have already signed these contracts. Second: They have proved that such organizations can be financed on a basis of commodity collateral for the purpose of orderly sale. Third: They have demonstrated that expert service can be performed by the employees of farmers' organizations just as well as by those of private corporations.

The four State Associations now active are handling more than \$50,000,000 worth of cotton this season and are doing it efficiently, sanely, and on the basis of the approved principles of city business. They have eliminated waste, inefficiency and speculation at country markets. They have reduced the so-called city crop to a minimum. They have practically eliminated country damage through a system of prompt warehousing, and other damage through blanket insurance. They have substituted knowledge for ignorance in the dealings of the farmers with the buyers of the cotton.

It should be distinctly understood that these marketing organizations are not believed to be panaceas for all agricultural ills. Neither are they designed to hold the product off the market with the thought of influencing prices, regardless of the law of supply and demand. They are specific associations for orderly marketing and for shortening the route between producer and spinner. They declare no war on anybody. They are in search of the high dollar for cotton. They are working in thorough harmony with a large percentage of the big cotton exporters and brokers.

Beginning with the fall of 1922, the American Cotton Growers' Exchange will enter the cotton market with approximately two and one-half million bales of cotton under control of its members, according to an estimate furnished the Directors by each State. This figure is based on a normal cotton year. Should there be a repetition of last year's short crop, the Exchange will handle over one and one-half million bales. The Associations do not handle cottonseed. There are eight State Associations and 127,187 farmers who are members, according to reports tabulated at a meeting of the Board of Trustees held in Birmingham, on May 18. Following is a summary of the number of members and bales in each State Association, as reported at the Birmingham meeting:

State	Members	Bales
Oklahoma	36,000	425,000
Texas	19,100	552,000
Arkansas	5,900	215,000
North Carolina	27,000	400,000
South Carolina	9,187	423,000
Georgia	13,000	268,000
Alabama	6,000	100,000
Arizona	1,000	50,000
	127,187	2,453,000

The real purpose behind these organizations is not merely more money for cotton to the grower thereof. That is a means to an end. The end that is sought is an improvement in the standard of living of the cotton South. More money to the grower of cotton means glass windows in the houses, more conveniences in the home, more and better tools for cotton culture, better clothes for the family, schools for the children that will average up with other farming regions, a larger buying power for the South and a greater realization of citizenship on the part of Southern farmers and their families. All these things follow in the wake of farm prosperity, and it is for these things that the Oklahoma Plan of cotton marketing came to life.

Award Contract for \$400,000 Court House.

Macon, Ga., June 10.—[Special.]—Contract was awarded this week to the Southern Ferro Concrete Co., of Atlanta, for erection of Bibb County's new \$400,000 court house. Sub contracts were awarded the following firms: Central Georgia Plumbing & Heating Co., Macon, plumbing, \$11,396.56; American Plumbing & Heating Co., heating, \$13,491.38; Morris Putzel, electrical work, \$6235; H. C. Anderson, painting, \$3553. Work on the structure will begin immediately.

Texas a Heavy Shipper of Early Vegetables.

Houston, Tex., June 10—[Special.]—According to figures just compiled Texas will ship upwards of 19,000 car loads of early vegetables this year, which with the later vegetables and other small crops will bring the total to 60,000 car loads. Texas during the past few years has kept abreast of other states as an early shipper to Northern and Eastern markets. Up to May this state had shipped 10,000 cars of cabbage, onions, spinach, white potatoes, strawberries and mixed vegetables, and estimates indicate that before the early season ends this number will have been increased by 9000 cars. This is approximately 7000 cars ahead of last year's shipments for the same period.

Mexico to Hold Second International Commercial Exposition.

The second International Commercial Exposition of Mexico City will be held August 15 to September 15. Last year's exposition of both Mexican and American exhibitors, was marked by an attendance of over 200,000 and American firms reported sales exceeding \$5,000,000. This year only American exhibitors will be sold space. The American offices are located at 750 Woolworth Bldg., New York City, and 1604 North American Bldg., Chicago, Ill. The Ward Line plying between New York and Vera Cruz have agreed to carry shipments for exhibition purposes at 50 per cent off tariff rates.

\$500,000 Scottish Rite Cathedral Planned.

Louisville, Ky., June 12—[Special.]—Nevin, Wischemeyer & Morgan, architects have been selected to prepare plans and specifications for the \$500,000 Scottish Rite Cathedral to be erected on the old Tavern Club site here. Work will be started as soon as possible.

New \$1,500,000 Home for Chamber of Commerce of the United States.

Washington, June 10—[Special.]—Plans have been completed by Cass Gilbert, architect, of New York, for the new building of the Chamber of Commerce of the United States to be erected upon the site of the one-time home of Daniel Webster here. The structure will be of classic architecture, having a frontage of 158 feet with a depth of 149 feet; it will be four stories high with provisions for adding one or two stories additional. It is estimated that the completed building will involve the expenditure of approximately \$1,500,000.

Government Ownership a Dismal Failure.

B. P. TEMPLETON, Delvalle, Travis Co., Tex.

Seeing so much in the papers about Government ownership and control of this, that and other kinds of business, especially coal mining and transportation, I ask you, haven't we had a sufficient demonstration of that idea in the national control of the railroads during the war?

Hasn't it been proven that the Government is a total failure as a business manager. If it goes into the markets to buy it has to pay fifty to one hundred per cent more than other buyers; if it calls for bids on contracts for Government works it has to pay more than any other for all it gets. It has to pay more for labor than other employers, it pays double value for official services. It is held up and robbed in every business transaction in which it is engaged.

Officials complain about inadequate salaries; if they cannot live comfortably on the salaries they get, why don't they resign and seek better wages in other employments or go to farming?

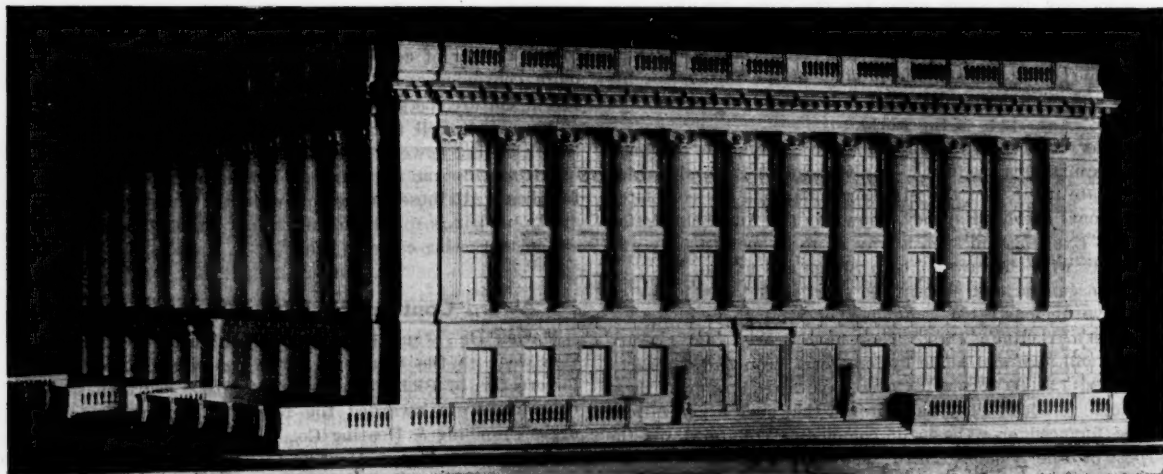
As the MANUFACTURERS RECORD is about the only publication that has the grit and courage to express its opinions I hope it will come out stronger against government ownership and control of business.

Motorists Negligent at Crossings.

The Baltimore & Ohio Railroad Co. reports, as a result of observations made by its men at busy grade crossings for more than two years, that drivers of motor vehicles are less regardful of their own safety than formerly. Last year the company's observers stationed at such crossings took note of 398,000 vehicles in several states along its lines and of this number 25,690 drivers or 6 per cent of the total failed to take any precautions at crossings. During April of this year 16,477 automobiles were checked and 2972 drivers, or 18 per cent, failed to stop, look or listen before crossing tracks. During the first four months of this year 58,816 machines were checked and the percentage of negligence was 17 per cent. The careful crossing campaign is to continue until October 1.

\$2,500,000 Masonic Temple Memorial Building.

Alexandria, Va., June 10—[Special.]—Ground has been broken for the \$2,500,000 memorial Masonic Temple to George Washington, to be erected on Shooters Hill, George Washington Park. The Cranford Paving Company of Washington has the contract for excavation; the contract for actual building has not yet been awarded.



MODEL OF \$1,500,000 STRUCTURE FOR THE UNITED STATES CHAMBER OF COMMERCE.

The Credit Union and Its Industrial Significance.

By ROY F. BERGENGREN, Boston, Mass.

The purpose of the credit union is two-fold: to stimulate thrift and to create credit facilities, for legitimate purposes, for those to whom normal sources of credit are not open. Thrift promotion is of particular timeliness at this time. The problem of adequate credit facilities for the bulk of the people is as old as the practice of usury which always results from the lack of such facilities.

The first credit union law in the United States was enacted in Massachusetts in 1909. It was drafted by the then Bank Commissioner, Pierre Jay, assisted by M. Alphonse Desjardins who, ten years before, had organized the first credit union or La Caisse Populaire at Levis in the Province of Quebec. M. Desjardins had, prior to his original effort, been for many years a close student of co-operative banking in Europe and his system was modelled on that devised by Raiffeisen at Flammersfeld in 1849.

The credit union not only has a very substantial historical background and a most conservative record in both Europe and Canada but has been operating effectively in Massachusetts for a sufficient period so that the Bank Commissioner of that state, in his latest annual report, says that "the credit union has advanced far beyond the experimental stage in this Commonwealth."

It is beyond the scope of this article to discuss the development of rural credit unions in North Carolina, which indicates something of the possible value of the credit union as the solution of the short term, rural credit problem. It is our purpose here to discuss the industrial or urban type of credit union organization which has resulted from credit union development in such typically industrial states as Massachusetts and New York.

A credit union is a "bank in miniature", authorized by a specific state statute which determines its method of organization and control. It originates in a petition by some group of citizens who, in Massachusetts, must number at least seven and who address their petition to the Board of Bank Incorporation. The group may represent the employees of some large or small industrial unit, store, mill, public service corporation, employees of the state or of some municipal unit. They may represent some particular neighborhood, community, church parish or racial group. The variety of credit union organization is great but the principle of group organization fundamental. A hearing is granted the petitioners and, if favorable action results therefrom, the petitioners draw up by-laws, elect the officers provided for therein, pass certain essential votes and submit their by-laws to the Bank Commissioner for his approval. As soon as they are approved a charter issues and the credit union is ready to do business.

Urban credit unions are generally under the supervision, direction and control of the Commissioner of Banks while, in rural states, jurisdiction over credit unions vests, generally, in the Department of Agriculture. Credit unions are always safeguarded by close state supervision. Otherwise they are entirely organizations of members in which the funds are accumulated from the members, the loans are made to the members, the management vests in the members and to the members all profits revert. There is no element of charity or of quasi-charity in the credit union. It is developed entirely on the principle of self-help.

Money is accumulated by the issuance of shares. As the credit union specializes in the smallest units of saving the shares are payable on a weekly basis in installments of ten or twenty five cents per share. Small deposits are also accepted. The credit union places the emphasis entirely on the development of the habit of saving in small, weekly payable units of saving, so small in individual amount that "any one,

who earns anything, can save a part of what he earns." The sale of Liberty Bonds to wage workers on a small, regular installment payment basis made the wide distribution of Liberty Bonds possible and, incidentally, taught a vast number of people that it is possible to save money if the business of saving is made habitual. In four years the Telephone Workers Credit Union of Massachusetts, consisting mostly of telephone girls, linemen etc., has accumulated over three hundred and thirty thousand dollars by this method.

The money, thus accumulated, is loaned to the members "for any provident purposes." The surplus, if any, is invested in any investment which is legal for savings banks. The loans are subject to such rules and regulations as the members may have determined in their by-laws or adopted at their meeting and to such further conditions as the credit committee, in the individual case, may determine. It is not possible, within the limitations of this article, to describe the many safeguards contained in a typical credit union statute. Suffice it that the Massachusetts Bank Commissioner, in his 1919 report, stated that loans aggregating \$2,150,000 had been made by the credit unions during the year without appreciable losses. During the twelve very difficult months from November 1920 to November 1921 not a credit union liquidated or closed in Massachusetts and more new charters were granted in the state than the total for the five previous years. The fifth report of the Skandia Credit Union of Worcester, Massachusetts, says that "during these five years it has loaned \$397,309.72 without a loss."

The original Canadian credit union, organized at Levis in 1900, started with twenty six dollars and now has assets of \$1,093,000 and in twenty years has done a business aggregating \$8,000,000 without losses. Ste. Marie, in Manchester, New Hampshire and the Credit Union Central Falls, in the city of that name in Rhode Island, with assets which, combined, would exceed a million and quarter have similarly fine records.

Every executive who comes in daily personal contact with any considerable number of employees knows about the credit problem of the wage worker. It may arise from a long sickness, an unexpected operation or accident or death in the family with large resulting expenditures for nurses, doctors, undertakers. He may be in the grip of the licensed money lender or confused and harrassed by an accumulation of petty bills. He may need money to help his boy pay his tuition at the technical school. Possibly he wishes that he could buy his coal when coal is more reasonable in price than when the pinch comes on the edge of winter. There are a great many perfectly legitimate reasons which form the basis of the credit problem of the wage worker. What is apt to happen to him is quite well illustrated by what actually did happen to the city employees of the city of Boston. An investigation, made by the mayor in 1915, disclosed the fact that an average of a hundred employees were each losing a half day's pay each week of the year because of the necessity of taking the half day off in order to straighten out their affairs between the pay-master on the one hand and the process server, the small loans collector armed with an assignment of wages etc., on the other. These men were paying an average of 180 per cent interest on their loans to the licensed money lenders, this in the city which boasts of being the Hub of the Universe and the Seat of Culture in the year 1915 A. D. To meet this condition a credit union was organized. As a result this condition was entirely eliminated. The City Employees Credit Union of the City of Boston now has assets of \$30,000. It makes loans to its members at 8 per cent and pays a 6 per cent dividend. It has been through a most severe and exceptional test. When

the police force of the city of Boston went on the strike which attracted national attention, they lost their jobs and many of them were not only members of the credit union but borrowers from it. The resulting losses did not equal a half of the then guaranty fund of the credit union.

While the fact is not entirely due to credit union development in Massachusetts it is yet interesting to note that, while the annual total of credit union loans in the state has been increasing from a half million to an amount which will, this year, exceed four million dollars, the number of licensed money lenders in the state has decreased more than one half and the total capital invested in the small loans business from nearly eight to less than two million dollars. It is argued by many well informed persons that the present legal rate of interest on small loans in some fifteen states, (42 per cent per annum), is the lowest rate at which the licensed money lender feels that he can do business at a profit. If this is a fact it is obviously necessary to find a substitute for the licensed money lender if there is to be no usury in the United States.

Typical among the successful industrial credit unions in Massachusetts are those organized among the employees of such plants as the Waltham Watch Company (Waltham), the Dennison Manufacturing Company (Framingham), the Walworth Manufacturing Company (Boston), Bird & Sons Company (Walpole), the Blake & Knowles Works of the Worthington Pump and Machinery Company (Cambridge), etc., etc. A credit union was organized among the employees of the Hamilton Woolen Company at Southbridge in August 1921. At the end of the first month it had 183 members and assets of \$1228. At the end of the third month it had 262 members and total assets of \$4309.61. The Massachusetts credit unions range in membership from twenty five to five thousand members in a single credit union and in individual assets from a few hundred dollars to more than half a million dollars in the largest of them. While credit union assets were increasing in Massachusetts 42 per cent in 1920 the New York Credit unions showed a total increase in assets of more than 100 per cent, the New York development being very similar in kind to that in Massachusetts.

The by-products of credit union development are many, the greatest of them being the educational value of the credit union to its members. The members of a plant credit union take great pride in it, manage it conservatively, developing not only a sense of responsibility in the management but that stability in the individual members which automatically results from thrift and the elimination of worry over credit difficulties.

If thrift promotion is of national importance and the development of legitimate credit facilities for the many, who are now without credit resources at other than usurious rates of interest, promotes happiness and develops opportunity within the great average of the human family then the possible extension of the credit union system to all parts of the United States is a matter of common concern.

Louisville Building Permits for May Reach a Total of Nearly \$3,400,000.

Louisville, Ky., June 5—[Special.]—D. M. Brucker, inspector of buildings, reports that for last month 528 permits for construction of all kinds with a valuation of \$3,339,200 were issued. This figure surpasses by a big margin the record for any previous month this year, and clearly indicates the big revival in building and general business under way in this section. In January permits to the value of \$466,750 were issued, with \$460,400 in February. March values jumped to \$1,303,900, followed by an increase in April to \$2,175,550.

\$2,000,000 BUILDING FOR CITIZENS' NATIONAL BANK OF BALTIMORE.



To be erected at southwest corner Light and Redwood Streets, Baltimore, for Citizens' National Bank; cost about \$2,000,000; 20 stories; 116x77 feet; fireproof; steel and Bedford limestone; banking room 43 feet high with mezzanine floor; Graham, Anderson, Probst & White, Architects., Chicago.

To Make Mobile a Big Flour Port.

Mobile, Ala., June 10—[Special.]—First steps in making Mobile one of the big flour ports of America and inaugurating a new trade route through Alabama's port, which eventually will mean the saving of millions of dollars to flour consumers in southern territory it is stated, were taken last week by the Dixie-Portland Flour Co., of Memphis, Tenn. and Portland, Ore. The company announced plans for establishment of a repacking and mixing plant at Mobile to serve Alabama, Mississippi, southwest Georgia, northern Florida and other states in the southeastern trade territory. Pacific millers will ship in large quantities of flour, returning with cast-iron, pig iron, coal and coke, etc. C. B. Barnes will be local manager of the plant at 166 N. Commerce St., which is now being remodeled.

J. E. Beaman, Raleigh, N. C., has been awarded the contract for erection at a cost of \$162,000 an auditorium and dormitory for the East Carolina Training College, after plans by H. A. Underwood.

THE IRON AND STEEL SITUATION

Increasing Steel Output Indicates Continued Heavy Construction—Lower Prices for Lake Ores.

Pittsburgh, June 10—[Special.]—Production of steel ingots in the United States in 1921 is now officially reported at 19,184,084 gross tons, or a trifle less than the estimates made at the close of the year. Production was less than half that in 1916, 1917, 1918 and 1920, and showed a decrease from the record, made in 1917, of 56 per cent. Barring 1908, the production was the smallest since 1904.

Capacity may be estimated at 52,500,000 tons, so that production in 1921 was 37 per cent of capacity. This may be a fair comparison from the viewpoint of the steel manufacturer, who wants to see the mills operate, but it is very far from a fair gauge of the industrial activity of the country. It is no doubt perfectly proper to consider iron, or steel, the barometer of trade, but the industries of the country are interested in the number of tons they consume, not in the percentage the tons constitute of what chances to be the steel producing capacity. The capacity is 75 per cent greater than the production in any year before the war, but a ton of steel will do as much work as before the war. To go further, one is probably justified in concluding that the steel industry is so large that it cannot be expected to operate at its present rated capacity, on account of difficulties in securing raw materials, transportation, and labor. In fact, on account of physical limitations, the steel industry has not operated at capacity at any time since November, 1916.

Production of steel ingots last month was at the rate of about 38,250,000 tons a year, and the rate now is probably close to 39,000,000 tons. There was a very rapid increase in production in the first three months of the year, while the present rate is 10 per cent above the rate April 1, when the coal strike started.

With steel production increasing during more than two months of the coal strike, and with a very strong market seen at the present moment, it becomes evident that no very large part of steel demand in the past three months can have been due to buyers laying in stocks on account of fear that the coal strike would interfere with deliveries, for if buyers had been acting chiefly on that theory they would be concluding now that the theory was wrong and would be disposed to start liquidating the stocks. The continuance of pressure for deliveries indicates that the great bulk of the steel has gone into actual consumption. Undoubtedly there has been some replenishment of stocks, which were very low at the beginning of the year, but no more than a natural, normal replenishment.

The turnover in the steel market is fair, though considerably lighter than in March and April. Mills are reluctant to increase their obligations, being well filled for the next couple months.

In several commodities there is a range of prices, depending on size of order, specifications, time of delivery and relations between the buyer and mills. Buyers who have no regular mill connection generally pay higher prices than buyers having regular mill connections, particularly with the Steel Corporation which, as in 1920, is disposed to hold its prices down. The market is quotable as follows: Bars, shapes and plates, 1.60c to 1.80c; hoops and bands, 2.25c to 2.50c; blue annealed sheets, 2.40c to 2.50c; black sheets, 3.15c to 3.40c; galvanized sheets, 4.15c to 4.40c; automobile sheets, 4.50c to 4.75c; standard steel pipe, 71 per cent basing discount; wire nails, \$2.40 to \$2.50; tin plate, \$4.75.

The pig iron market has continued stagnant. Quotable prices, now partly nominal, remain at \$25 for Bessemer and basic and \$24 to \$25 for foundry, f. o. b. valley furnaces.

Without waiting any longer for decision in the upper lake

rail case the Lake Superior iron ore market for the 1922 season opened yesterday, at 50 cents reduction from 1921 prices, making Missabe non-Bessemer \$5.05 f. o. b. Lake Erie docks. The lake freight rate is down 10 cents and a reduction of 25 cents in upper lake rates is expected; ore producers are taking their chances on that, and making a reduction of 15 cents on their own account in the amount to be received f. o. b. mine.

Greater Production at Birmingham—Outlook Good.

Birmingham, Ala., June 12—[Special.]—Buying movement in pig iron is again looked for by Southern furnace interests. The belief is that when it does take on an impetus it will be to cover the probable make for the fourth quarter and at a minimum level of \$20 per ton, No. 2 foundry, 1.75 to 2.25 per cent silicon. The market quotations for the past two weeks have been on a level of \$18.50 to \$19.00 per ton, No. 2 foundry, but one or two interests have sold a little tonnage, early delivery on a basis of \$20 and the predictions are that when the buying starts in again it will be at that price, future delivery.

Production of iron is greater than during any month in more than two years. Two furnaces are to be blown in this month, including one on manganese with a third probably on charcoal iron. The Central Coal & Iron Company is making effort to get its Holt furnace back in operation as quickly as possible, after relining the iron-maker. The surplus stocks have been worked down and despite the larger production there is no iron going to the yards to be counted on if the demand increases as rapidly as some of the more optimistic expect. On May 1, 1922, there was 81,557 tons of pig iron on yards in this state, 41,319 foundry, 20,050 machine cast, 1570 warrant and 18,618 tons basic. On June 1 the figures were 30,576 tons foundry, 11,916 machine cast, 2400 tons warrant and 15,302 basic iron. This surplus is not considered of any consequence in the active market. Sales of pig iron in the last two weeks have not been as numerous as previously but the strength of the market has been prominent.

Local consumption together with the pig iron being shipped out of the district is considerably in excess of the make. The cast iron pipe interests announce that while there have not been so many lettings lately the market is very strong and that there are contracts in hand which will call for heavy melting of iron. The soil pipe and fittings makers are pretty well swamped with business. A report from Gadsden is to the effect that the Messrs. Stringer of Chicago, who operate a large soil pipe and fittings plant in this state, have been at Gadsden for several days to devise ways of increasing production. The taking over of the plant of the Birmingham Pipe and Fitting Company at Gate City, part of Birmingham, by O. L. Stephenson and H. O. Bernard, well-known soil pipe men, and the starting up of the plant which has been idle for two years and longer, has great significance. It is stated that the firm has taken on business which will warrant steady operation for some time. Anniston, Gadsden, Birmingham and Bessemer report activity increasing with the soil pipe makers and fittings producers.

Foundries and machine shops are increasing operations. The Hardie-Tynes foundry, has some recent contracts, mainly repair work, and there is better operation there than for more than 18 months and longer.

Coke is still in good demand. Foundry coke is quoted at \$5.50 per ton, a few sales having been made as high as \$6 while pitch coke is being quoted at \$9. The latter is being produced in bee-hive ovens of the Republic Iron & Steel Company by the Barrett Company, producers of tar products, the residue of tar being used in the manufacture of coke. Some little coke is being shipped from the district.

Coal production is on the increase. Weekly reports indicate that 320,000 tons of coal are being mined. It is estimated that production could be increased from 50,000 to 100,000 tons a week if demand justified. The Tennessee Coal, Iron & Railroad Company and the Woodward Iron Company have increased the wages of coal miners a little in the last two weeks and other iron and steel companies are considering a similar move.

Scrap iron and steel is commanding a little more attention.

PIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f.o.b. furnaces, \$18.50 to \$19.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$19.00 to \$19.50; iron of 2.75 to 3.25 per cent silicon, \$19.50 to \$20.00; iron of 3.25 to 3.75 per cent silicon, \$20.00 to \$20.50; iron of 3.75 to 4.25 per cent silicon, \$20.50 to \$21.00; charcoal iron f.o.b. furnaces, \$28.00 to \$30.00.

OLD MATERIAL.

Old steel axles.....	\$14.00	to	\$15.00
Old iron axles.....	14.00	to	15.00
Old steel rails.....	13.00	to	14.00
Heavy melting steel.....	13.00	to	14.00
No. 1 R. R. wrought.....	11.00	to	12.00
No. 1 cast.....	14.00	to	15.00
Stove plate.....	14.00	to	15.00
Old car wheels.....	12.00	to	13.00
Old tramcar wheels.....	14.00	to	15.00
Machine shop turnings.....	6.00	to	6.50
Cast iron borings.....	6.00	to	7.00
Cast iron borings (Chem.).....	13.40	to	14.00

Iron and Steel Production of 1921.

Production of steel ingots and castings last year, according to statistics compiled by the American Iron and Steel Institute, amounted to 19,743,797 gross tons. This is less than half the output of 1920 of 42,132,934 tons, and about 28 per cent less than the five-year average production of the pre-war years of 1910-1914. It is the smallest steel ingot and casting output since 1908 when 14,023,247 tons were produced. In 1921, 160 works in 24 States and District of Columbia made steel ingots, against 205 works in 1920.

In 1921, the production of all kinds of iron and steel rolled into finished forms (including blooms, billets, and axle blanks rolled for forging purposes and semi-finished products which were rolled for export in that year) was 14,774,006 gross tons. This is a decrease of 17,573,857 tons, or 54 per cent, as compared with 1920, and 6,921,740 tons, or about 32 per cent less than the five-year average production of 1910-1914.

PRODUCTION OF ALL KINDS OF FINISHED ROLLED IRON AND STEEL, BY STATES, GROSS TONS, 1920-1921.

States.	1920.	1921.
Maine, Massachusetts.....	225,479	109,497
Rhode Island, Connecticut.....	105,051	29,629
New York.....	1,562,058	500,523
New Jersey.....	218,903	90,986
Pennsylvania.....	13,718,265	6,103,790
Delaware, Virginia.....	103,438	38,553
Maryland.....	458,577	107,164
West Virginia.....	957,242	367,577
Kentucky, North Carolina, Tennessee, Georgia, Texas.....	306,822	80,844
Alabama.....	896,418	551,405
Ohio.....	6,454,004	3,167,724
Indiana.....	3,499,855	2,050,567
Illinois.....	2,487,085	1,127,482
Michigan, Wisconsin, Minnesota.....	514,768	86,503
Missouri, Iowa, Oklahoma.....	151,772	52,480
Colorado, Utah, Washington.....	490,609	220,122
California, Canal Zone.....	197,517	89,160
Total.....	32,347,863	14,774,006

PRODUCTION OF FINISHED ROLLED IRON AND STEEL BY LEADING PRODUCTS, GROSS TONS, 1921.

Products.	Iron.	Steel.
Rails.....	.....	2,178,818
Plates and sheets.....	20,237	4,240,337
Nail and spike plate.....	103	14,470
Wire rods.....	525	1,563,805
Structural shapes.....	87	1,272,537
Merchant bars.....	198,324	1,367,439
Bars for reinforced concrete work.....	1,094	226,134
Skepl, flue, and pipe iron or steel.....	115,523	1,815,052
Hoops.....	.....	166,961
Bands and cotton-ties.....	618	142,807
Long angle splice bars, tie-plate bars, etc.	45,822	377,998
Roll sheet piling, not including fabricated	.....	18,165
Railroad ties.....	.....	10,361
Roll forged blooms, forging billets, etc.	250	108,206
Blooms, billets, sheet bars, etc., for export	.....	7,506
All other finished rolled products.....	163,094	717,742
Total.....Gross tons	545,677	14,228,329

In addition to the 18,165 tons of rolled sheet piling above reported there were produced by rolling mills and steel works in 1921 about 5501 tons of fabricated sheet piling, as compared with 3941 tons of the same kind of piling in 1920.

Steel Ingot Production for Two Years—May Total is Largest Since October, 1920.

Following is the monthly production of steel ingots, from January, 1920, to May, 1922, as reported to the American Iron and Steel Institute, by 30 companies which made 87.48 per cent of the steel ingot production in 1921:

Months, 1920.	Open Hearth. Gross tons.	Bessemer. Gross tons.	All other. Gross tons.	Total. Gross tons.
January, 1920.....	2,242,758	714,657	10,687	2,968,102
February.....	2,152,106	700,151	12,867	2,865,124
March.....	2,487,245	795,184	16,840	3,299,049
April.....	2,056,336	568,952	13,017	2,638,305
May.....	2,251,544	615,932	15,688	2,883,164
June.....	2,287,273	675,954	17,463	2,980,690
July.....	2,135,633	653,888	13,297	2,802,818
August.....	2,299,045	695,003	5,764	3,000,432
September.....	2,300,417	693,586	5,748	2,999,551
October.....	2,335,863	676,634	3,485	3,015,982
November.....	1,961,861	673,215	3,594	2,638,670
December.....	1,687,162	649,617	3,586	2,340,365
Total.....	26,197,843	8,112,753	121,656	34,432,252
1921.				
January, 1921 ..	1,591,281	608,276	3,629	2,203,186
February.....	1,295,863	450,818	2,706	1,749,477
March.....	1,175,591	392,983	2,404	1,570,978
April.....	1,000,053	211,755	2,150	1,213,958
May.....	1,047,810	216,497	1,543	1,265,850
June.....	808,286	193,644	1,476	1,003,406
July.....	689,489	113,312	575	803,376
August.....	915,334	221,116	1,621	1,138,071
September.....	908,381	265,152	1,207	1,174,740
October.....	1,269,945	345,837	1,028	1,616,810
November.....	1,294,371	363,912	1,718	1,660,001
December.....	1,129,174	296,380	1,589	1,427,093
Total.....	13,125,578	3,679,682	21,686	16,826,946
1922.				
January, 1922 ..	1,260,809	331,851	822	1,593,482
February.....	1,395,835	348,571	616	1,745,022
March.....	1,918,570	451,386	795	2,370,751
April.....	1,997,465	445,939	1,109	2,444,513
May.....	2,214,774	494,893	1,474	2,711,141

* Revised.

The "Iron Mountain" of Mexico May Pass into American Hands.

Monterey, Mexico, June 3—[Special.]—It is reported here that the famous Iron Mountain, which rises to a height of about five hundred feet out of a level plain in the outskirts of the city of Durango, is about to pass into the hands of American interests which also have under consideration the building of a large iron and steel plant at Torreon.

This deposit of iron ore is said to be one of the largest upon the continent. It was the lure that caused the late Collis P. Huntington head of the Southern Pacific Company, to build the Mexican International Railroad from Eagle Pass, Texas, to Durango many years ago. Mr. Huntington and associates purchased Iron Mountain for \$500,000 but with his death not long after the railroad was finished, the property passed into other hands. It is from this deposit that the Monterey Iron and Steel Company has been obtaining its ore supply for its large plant here during the last several years.

Rolling Mills at Capacity Production.

The Eastern Rolling Mills Co. of Baltimore is now working at capacity as a result of increased demands for its products, coming principally from automobile manufacturers. Twenty-four hour operation of the hot mills has been necessary to keep up with orders, and so great is the desire for prompt shipments that several Detroit firms have sent men to the city to follow orders through. Enough business is in hand to insure operation of the mills at the present rate during the third quarter of the year. A short time ago they were working at less than 25 per cent capacity; this increased to about 65 per cent two months ago, followed by the recent improvement to the present scale of operation.

RAILROADS

Southern Pacific's Good Report for 1921.

Net revenue of the Southern Pacific Company from railway operations during 1921 increased more than sixteen and three quarters millions of dollars according to the annual report just issued and the net railway operating income increased more than fourteen and a half millions. Operating ratio was reduced from 85.77 per cent in 1920 to 78.88 for 1921.

Notwithstanding this pronounced improvement in results for the year Chairman Julius Kruttschnitt says to the stockholders:

"Operating revenues were seriously affected by the nationwide business depression that began about the close of 1920 and continued throughout the year 1921, aggravated on your company's lines by diversion of transcontinental business, by much lower rates offered by the Panama Canal route and by the competition on the highways of motor trucks substantially free from taxation and regulation. Freight revenue has been adversely affected by the smallest cotton crop in Texas and Louisiana that has been produced in twenty years; by a large reduction in the acreage of rice planted in the same states and by the reduction of rates on such important commodities as beans, canned goods, dried fruit, livestock, lumber, apples, cantaloupes and vegetables. Revenue from passenger business was diminished by a dearth of large conventions such as were held on the Pacific Coast during the preceding year and by a substantial increase in travel by automobile."

In connection with a reference to a reduction of transcontinental freight rates to stem the tide of what he calls "wholesale diversion of transcontinental traffic" to steamship lines going through the Canal, Chairman Kruttschnitt says that last year the number of steamship voyages between Atlantic and Pacific ports of this country via that route increased 80 per cent and the volume of freight \$3 per cent over 1920 and that this does not include freight from other countries or going to other countries, much of which was formerly carried across this continent by rail. "The railroads," he remarks, "have not made much progress towards meeting the water competition for transcontinental freight because of the unfair handicap to which they are subjected."

There is a significant paragraph contrasting the high degree of safety for passengers under private ownership and operation with the much lower degree when under Government control, as follows: "Not a passenger was killed in a train accident in the three test years (that was before the Railroad Administration took charge) but under Government control the number killed was one to every 3,703,000 locomotive miles run in 1918 and 1 to every 10,000,000 locomotive miles run in 1919. In 1921 the number was only 1 to every 50,000,000 locomotive miles run." There was furthermore, under private operation a very pronounced decrease in derailments resulting from defective track and equipment.

The total railway operating revenues for 1921 were \$269,494,365; decrease as compared with 1920, \$12,775,138; total railway operating expenses, \$212,572,262; decrease, \$29,541,527; net revenue from railway operations, \$56,922,102; increase, \$16,766,388; net railway operating income, \$35,946,791; increase, \$14,634,447, or 68% per cent more than in 1920.

The balance sheet shows total assets of over \$1,950,000,000 an increase of over \$17,000,000 for the year.

Freight Traffic—Coal Gains Over 10 Per Cent.

Loadings of revenue freight on the railroads during the week ended May 27 according to a statement from the Association of Railway Executives, totaled 821,121 cars, an increase of 28,662 cars as compared with the previous week, or over 25,000 more than during the corresponding week last

year. There were 91,370 cars loaded with coal, an increase of 9403 cars as compared with the previous week, or over 10 per cent. Loadings of all commodities were reported in all districts except the Central West, but the Pocahontas, the Southern and the Northwestern districts were the only districts to report increases over the corresponding week of last year.

Seaboard Air Line's Progress.

In the annual report of the Seaboard Air Line Railway Co. just issued the chief feature is the fine equipment program which includes 25 locomotives, and 1750 freight cars all of them new besides the rebuilding of 3000 freight cars. There are also being built two large freight and passenger steamers to run on the Old Bay Line route between Baltimore and Norfolk. All of this construction will be accomplished through the medium of the Seaboard-Bay Line Company, the organization of which was recently noted, and which has negotiated a loan of \$4,400,000 from the Government under the provisions of the Transportation Act and this sum, together with the cash capital of the new company, \$1,500,000 will finance the equipment needs.

It is also important to observe that in addition to the equipment mentioned in the report, the Seaboard Air Line has ordered 900 ventilated box cars, 100 all steel phosphate cars and 4 all steel dining cars to be built and then, in addition to the 3000 freight cars mentioned in the report and which are being rebuilt at the plant of the Chickasaw company, Birmingham, Ala., the railway company will also rebuild at its shops several thousand other cars, work on which is already under way.

All of the locomotives purchased have now been delivered and delivery is in progress of the new cars as well as of those being rebuilt by the Chickasaw company and all are expected to be on hand by September 1. The two steamers are also to be delivered early in the autumn.

The gross revenue of the Seaboard Air Line Railway for 1921 was \$42,844,933; operating expenses, taxes, rentals and uncollectible railway revenues, \$40,782,561; net railway operating income, \$2,062,371; gross income, \$4,989,340; net income (debtor) \$224,206. The general balance sheet shows total assets of over \$244,000,000.

The report is signed by President S. Davies Warfield, who is also chairman of the Board.

In this connection it is important to note that the Seaboard has recently created a budget committee of five members and a public relations committee of three members. L. R. Powell, Jr., Vice Prest. and Comptroller of the company is chairman of the former and M. J. Caples, Vice Prest., is chairman of the latter. A permanent labor committee has also been established, and W. L. Stanley, General Attorney, Atlanta, Ga., has been elected Vice President. He will have charge of matters pertaining to general public relations, including state commissions and municipalities. C. S. Ucker, director of development, will have charge of matters relating to agriculture and industry.

Railroad Town Growing Rapidly.

"Where a few months ago there was nothing but wilderness," says a press dispatch from Muskogee, Okla., "is now a town of tents and cottages housing 500 persons. The town is Kenwood, Delaware County, center of activities on the new Oklahoma & Arkansas Railroad which is being completed as a twenty mile branch line of the Kansas, Oklahoma & Gulf Railroad at Salina to the timber district in Delaware County.

"A twenty-four room hotel with electric lights and baths, a sawmill worth \$150,000, a bank and several other institutions already are identified with the new town, which promises to have a population of 1000 before the end of the year."

Cut in Pay of Railroad Shopmen.

The reductions ordered by the United States Railroad Labor Board in the pay of mechanics and freight car men employed in railroad shops will, it is stated, result in a saving in the railroads' pay roll of almost \$60,000,000 a year. Mechanics' pay is reduced 7 cents an hour or 56 cents a day and the freight car "knockers", as they are known in the shops, have their pay reduced 9 cents an hour or 72 cents a day. The first cut affects such mechanics as machinists, boiler makers, blacksmiths, sheet metal workers, electrical workers, car men (excepting those engaged on freight car work), molders, cupola tenders, coremakers, and regular and helper apprentices. Car cleaners' pay was reduced 5 cents an hour or 40 cents a day.

This cut in the pay of railroad employees, added to that ordered in the maintenance of way departments recently, makes a total annual reduction in the aggregate pay roll of the roads of about \$108,000,000 it is estimated. It is said that the Labor Board is considering the amount of reduction to be ordered in the case of railroad clerks, telegraphers, and other classes of transportation employees excepting those employed in the train service.

The three labor representatives on the Board gave a minority opinion on the action of the majority which was adverse to the decision and asserting that it would result in lowered morale; that it tended to substantiate the idea that wages need not be established with reference to the needs of employees' families.

New Construction on Florida East Coast Line.

The annual report of the Florida East Coast Railway Co. for 1921 recites numerous improvements made by the line during the year, together with some additions to real estate and equipment. The erection of two fuel oil tanks, each of 50,000 barrels capacity, was authorized, one to be built at Key West and the other at Buena Vista. They will cost about \$56,000. A new concrete unit of the general office and file storage building at St. Augustine was also approved and authorized for construction at an estimated cost of \$190,000. Improved fuel oil facilities at Key West including piping layout have also been authorized to cost about \$70,000. Considerable work is likewise to be done during the current year on additional yard facilities at several important points and also on passing tracks.

The railway operating revenues for the year were \$13,579,109; railway operating expenses, \$11,218,634; net revenue from railway operations, \$2,360,474; railway operating income, \$1,555,374; gross income, \$1,998,163; net income, \$766,704 which constitutes the income balance transferred to profit and loss account. Total balance to credit of profit and loss December 31, 1921 was \$6,330,955, an increase of \$1,472,959 as compared with the end of the next preceding year.

Railroad Net Returns Show Large Increases.

The Association of Railway Executives, Munsey Building, Washington, D. C., reports that in April this year the railroads of the United States had a net operating income of \$50,256,800 an increase of \$20,400,200 as compared with the same month of last year, but a yearly return of less than 4 per cent on their tentative valuation and \$23,289,400, below a return of 5 3/4 per cent, the return fixed by the Interstate Commerce Commission in the recent rate decision. These figures are based on reports from 201 Class 1 railroads.

The net operating income of the railroads in the Southern district for the month was \$9,712,300, an increase of \$6,300,100 as compared with April of last year. This was at the annual rate of return of 5.62 per cent.

For the first four months of 1922 the net operating income of all the roads totaled \$211,278,394, an increase of \$153,869,494 as compared with the same period of 1921.

Lumber and Coal Branch Proposed.

Beckley, W. Va., June 10—[Special.]—The W. M. Ritter Lumber Company, with extensive holdings in the southern part of West Virginia will build about 15 miles of standard gauge railroad from Mullens to Pineville to afford an outlet for its timber products in Wyoming county, the lumber and coal resources of which are just beginning to develop on a large scale. It is understood that the contract for the road has been let and that work will begin soon. The branch is to be operated by the Virginian Railway. This new road mentioned will make accessible extensive deposits of smokeless coal as well as large tracts of timber heretofore undeveloped for lack of railroad facilities. The Wyoming County coal field is practically virgin and here the biggest development in the state is anticipated within the next few years, the Raleigh-Wyoming Coal Company in which Boston capitalists are extensively interested having only recently begun production at probably the largest producing mine in the state, which is under the direction of Carl Scholz, an eminent mining engineer.

Railroad Electrification in Mexico.

Monterey, Mexico, June 9—[Special.]—Within the next year the mountain division of the National Railways of Mexico from Monterey to Carneros 96 miles, will be transformed from steam to electric power, according to G. L. Trevino, electrical engineer of the system in charge of the construction in progress. The maximum grade is 2 per cent. Electric power will be obtained from stations in Monterey and in Saltillo. The engines will weigh 300 tons each with a hauling capacity of 1500 tons. A very heavy freight traffic passes over this division, much of it from mines in the region adjacent to Saltillo. Mr. Trevino says that the saving made by electric power will amount to more than \$500,000 United States money a year.

As soon as the electrification of this division is finished the more important project of converting to electric power the Tampico-San Luis Potosi division will be undertaken according to Mr. Trevino. This is 276 miles long and the maximum grade is 3 per cent. A large hydro-electric plant will have to be built at Micos Falls.

Virginian Railway Financing.

The Virginia & Western Railway Co. has asked the Interstate Commerce Commission for authority to issue and sell \$1,500,000 of 5 per cent bonds and the Virginian Railway Co., which owns the former, it is stated has asked for authority to guarantee the payment of principal and interest of the new securities. This financing is to reimburse the company's treasury for the construction of the Virginia & Western line in West Virginia.

Prepayment Rule Rescinded.

The American Railway Express has announced that on June 15 its rule requiring prepayment of charges on shipments to Canada was rescinded so that shipments can be made as formerly either prepaid or collect.

New Equipment.

The General American Tank Car Corporation, Chicago, has received an order from the Roxana Petroleum Corporation, St. Louis, Mo., to build 25 new forty ton insulated tank cars of 8000 gallons capacity and also another order from the Pennsylvania Salt Manufacturing Co., Philadelphia, for 10 fifteen ton chlorine tank cars with forty ton trucks.

Atlantic Coast Line has ordered 700 box cars from the Standard Tank Car Co., Sharon, Pa.

Nashville, Chattanooga & St. Louis Railway is reported in the market for 5 mountain type and 5 mikado type locomotives.

LUMBER AND BUILDING MATERIALS

New Impetus in Hardwood.

Memphis, Tenn., June 12—[Special].—The hardwood lumber market took on an impetus last month which promises to carry it back to prosperity. Orders were larger than in any single month since the spring of 1920.

The great extent of the moment is indicated by the handling of 62,000 cars of lumber during the week ended May 28, which is within 3000 cars of the peak, according to authorities.

Practically all groups of hardwood consumers are feeling the effects of the revival, and during the early part of June the volume of their purchases steadily increased. The outlook is for continued improvement. However, hardwood has not yet experienced such activity as the pine and cypress markets.

The general building campaign in all parts of the country is the basis of lumber prosperity, and as a result flooring manufacturers have been especially busy. As it now is, oak floors are being laid in all classes of homes and apartments, with a resulting heavy demand for common plain oak, and because of the recent flood conditions, manufacturers are coming to experience difficulties in getting lumber.

Furniture manufacturers also are beginning to feel the benefits of the widespread building activity, and are buying in increased volume. It is predicted that retail dealers will place large orders for furniture this summer, and that factories will be kept busy for months. Veneer manufacturers, likewise, anticipate increased business.

Automobile manufacturers continue to buy enormous quantities of lumber due largely to the increased productions of closed models. Agricultural implement manufacturers, buggy and wagon makers, are practically consuming groups not making purchases.

Lumber on Upgrade in Southern Texas.

Beaumont, Tex., June 12—[Special].—Lumber business is again on the upgrade according to those in touch with the trade in southern and eastern Texas. Last week shipments were 200 cars in excess of the same week last year and 150 cars in advance of the preceding week. A large number of mills in this territory are working on a 24 hour basis, but are still behind on orders. Others who have cautioned their salesmen about taking orders at prevailing prices are catching up. Recent boosts in prices have slowed up sales to some extent, but it is believed that this is only temporary and that lumber will be bought in volume for construction now under way and in prospect.

Demand for soft-woods particularly is heavier than production, and the price tendency is consequently upward. The decrease in orders is said to arise from a lack of willingness on the part of lumber manufacturers to book more business at this time, since statistics show the greatest accumulation of unfilled orders in four years.

Continued Improvement in Common Brick.

The monthly digest of conditions in the common brick industry as prepared by the Common Brick Manufacturers Association of America from reports of 99 members shows a decided upward trend in the industry. "There are more orders on the books than a month ago, nearly double the amount of brick produced in the last month as compared with the previous month, and a largely increased amount of shipping from the plants," says the digest, and adds: "Every report shows a building up of production and of market, with practically no change in the price. In some few centers the reports show a shortage of labor. The coal strike is resulting in some slight increase in the fuel cost."

"Reports from many of the members of this association in various parts of the country show that there is a phenomenal demand for brick, the result, we believe, of the advertising campaign conducted by the American Face Brick Association and the Common Brick Manufacturers Association. The message that this Association is sending out to its members at this time is to make brick to the utmost of their capacity."

Hardwood Lumber Manufacturers to Organize.

Memphis, Tenn., June 12—[Special].—Organization of a hardwood lumber manufacturers' association will be perfected at Louisville, Ky., this week. Scores of letters and telegrams from operators from all producing regions endorsing the plan were received at the offices of the American Hardwood Manufacturers' Association last week, in response to a call for a mass meeting, issued by the organization committee of the proposed American Hardwood Institute.

A declaration of principles is as follows:

"First—To have inspection rules and service in conformity with the Hoover idea, setting up technical and engineering service to co-operate with the National Lumber Manufacturers' Association.

"Second—To establish a statistical bureau providing such information as may be of benefit to the industry and within the legal rights of association activities.

"Third—To carry on such trade extension work as may be deemed wise by the convention to promulgate."

Shipments Gain, Sales Decline.

New Orleans, La., June 10—[Special].—Lumber sales for week ending June 2, declined sharply from the high levels of recent weeks, although shipments showed a corresponding gain, according to the summary report of 128 mills of the Southern Pine Association. Orders received during the week totaled 3936 cars containing 82,490,688 feet, giving an average order per mill of 644,459 feet compared with the average of 817,687 feet for the preceding week. Shipments aggregated 4506 cars, amounting to 94,436,748 feet, an average of 737,787 feet per mill. Production remains at about the same level, the total being 76,143,282 feet for the week.

Shipments were 24.02 per cent above production. Orders were 8.34 per cent above production, and 12.65 per cent below shipments. The decrease in orders on hand during the week amounted to 3.38 per cent, although, at the end of the week the average unfilled orders per mill amounted to 2,063,795 feet, which is higher than any recent figure.

The summary report for the week is as follows:

	Cars	Feet
Orders on hand beginning of week.....	16,839	352,911,762
Orders received during week.....	3,936	82,490,688
Total.....	20,775	435,402,450
Shipments during the week.....	4,506	94,436,748
Orders on hand end of week.....	16,269	340,965,702

Hardwood Men Will Meet at Chicago.

Hardwood manufacturers and dealers from all over the country will meet in Chicago to attend the 25th anniversary meeting of the National Hardwood Lumber Association. The association convention at the Congress Hotel will be preceded on June 21, by a meeting at the Drake Hotel, of hardwood lumber men and consumers.

F. A. Edson, of the petroleum experiment station of the Bureau of Mines, Bartlesville, Okla., has visited various oil fields in Texas to gather data for a bulletin on the use of the diamond drill in oil prospecting. Mr. Edson will later go to California to study the latest methods of rotary drilling and to the Northwest where considerable deep diamond drilling has been done. The investigation is of importance as it

seems likely that diamond drilling will come in more general use for prospecting new areas and that equipment will be manufactured that will compete with the present rotary outfit for drilling oil wells, says the Bureau.

Total Cost of Roads Now Building in Seventh District of North Carolina Reaches \$2,400,000.

Greensboro, N. C., June 10—[Special.]—The total estimated cost of roads now under construction or contracted for in the seventh district is \$2,400,000, according to C. S. Currier, district engineer. The entire program provides for 41 miles of concrete, 24 miles of penetration macadam, and 95.5 miles of top soil gravel roads. The total mileage of hard surface, authorized and under construction is 206 miles. The total of all roads authorized and under construction represents an expenditure of approximately \$4,650,000, and the total mileage of these roads is 315.

Prior to June 1, 1922, the ending of the fiscal year, there were seven projects completed in the seventh district. Six of these were Federal aid projects, and were constructed under the old law.

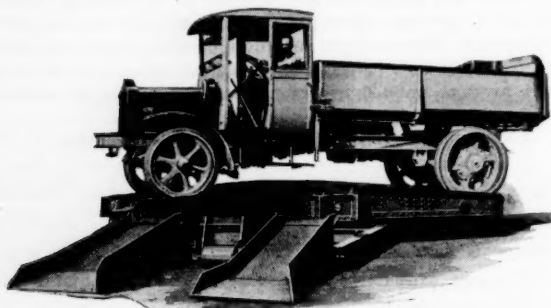
Contracts Let for Concrete Roads.

Pensacola, Fla., June 10—[Special.]—The County Commissioners have awarded road contracts to J. S. Holloway Co., of Hattiesburg, Miss., for 4.5 miles on the Flomaton-Pensacola road for \$109,000 and to John Gerkins for 2 miles on the Funez Ferry road for \$48,751. Eight bids were received for these roads which will be of concrete.

MECHANICAL

New Auto-Truck Turntable.

A portable turntable for motor trucks and designed for use in road construction work has been developed by the Champion Engineering Co., Kenton, O. The accompanying picture shows the turntable with a motor truck mounted on it ready for turning. This new device is described as a unique, patented design which will doubtless prove a saver



TRUCK ON TABLE READY TO TURN.

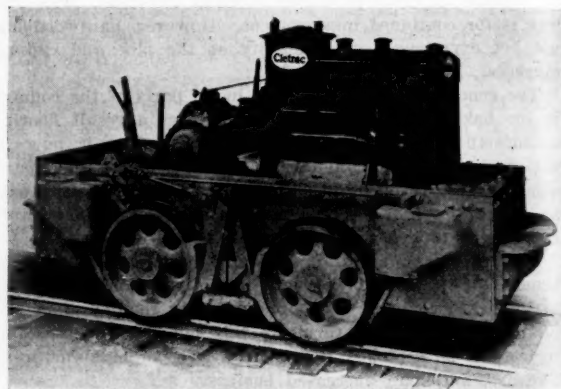
of time, labor and money for road contractors and others engaged in highway work.

The turntable's advantages will be appreciated in instances of work on roads when because of narrowness it becomes very difficult to find a place to turn large trucks. If they are mounted upon the turntable they can be turned about in 40 seconds. The power plant of the truck operates the turntable as the rear wheels rest upon rollers and when the motor is started the wheels communicate their power to the rollers and the turntable revolves. As it occupies comparatively little space a turntable can be placed within a short distance of the road work actually under way so that contractors can save practically all of the time usually required to back a long ways to dump loads.

Not only, it is said, will this machine save time but it will prevent breakdowns and especially will it avoid damaging the subgrade which would happen if trucks were turned on their own wheels, besides accomplishing sundry other economies.

New Industrial Locomotive.

A new and unique use for a tractor power plant is illustrated in the accompanying picture of a light industrial locomotive which has just been announced by the Atlas Car & Manufacturing Co., of Cleveland, O. The Model F "Cletrac" made by the Cleveland Tractor Co., of the same city, minus



TRACTOR POWER PLANT LOCOMOTIVE.

its side frames, track seat, and steering wheel, is set bodily into sturdy frame, giving an unusually light, inexpensive and yet powerful industrial locomotive. For use in connection with highway construction, on industrial railways, and for general plant hauling this combined Cletrac-Atlas locomotive has already given excellent service.

Commendations, Kicks and Comments

Awakening the South to a Broader Knowledge.

CHARLES J. HADEN, Atlanta, Ga.—It gives me pleasure to enclose remittance for a copy of your Blue Book of Southern Progress.

To a degree greater than any other living man you have caused the South to come to know herself, and a large share of our prosperity is traceable to your fruitful pen.

Clear Vision Needed on Tariff Issue.

Wyatt Yarbrough, Powhatan, La.—Enclosed find check for \$6.50 for renewal of my subscription. You have a great publication, and have the clearest conception of the economic needs of the South of any Journal I have ever seen. It is a pity our Southern statesmen could not see clearly on the tariff issue.

Fearless and Outspoken is This Subscriber's View.

Alabama-Tennessee Lime Company, E. Scott Miles, Mgr., Chattanooga, Tenn. Enclosed find check for \$6.50 covering subscription. I would not be without the MANUFACTURERS RECORD, as I get valuable information from the construction department, and I enjoy the editorials in the RECORD more than any paper I receive. You are certainly outspoken and fearless in your just criticism of some of the evils. Keep up the good work.

Non-Partisan and Independent is the Manufacturers Record Notwithstanding Our Critic's View.

R. B. Slaughter, Robbinsville, N. C.—I hand you check for \$6.50 in full for one year's subscription to the Record.

Your Journal is all right if you would not conduct it in the interests of Republicanism. No journal other than a partisan Republican publication would defend this Administration. "Exponent of America" on the cover-page of your Journal ought to be "Exponent of Republicanism." You ought to be purely non-partisan and truly independent, as you have many times stated.

Construction Department

EXPLANATORY.

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

DAILY BULLETIN.

The Daily Bulletin of the MANUFACTURERS RECORD is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

Airplane, Plants, Stations, Etc.

Mo., Springfield—Chamber of Commerce, interested in establishing airplane landing field for aerial mail route.

Va., Fort Monroe—Hangars—Constructing Quartermaster, erect a steel hangar, 100x200 ft. at Langley Field, Va.; bids until June 20. (See Mch. Wanted—Hangars.)

Bridges, Culverts and Viaducts.

Ala., Huntsville—State Highway Dept., Montgomery, Ala., plans building concrete bridges on Big Cove road from Huntsville to Marshall County line.

Ala., Mobile—Mobile County Board of Revenue and Roads Comms., Thos. B. Allman, Chrmn., let contract to Harry L. Murray to repair county bridge on Halls Mill road, 15 mi. south of city.

Ark., Russellville—Pope County let contract to Walter E. Myers to build bridge across Indian Creek; 120-ft. span; concrete abutments. Address County Comms.

Fla., Daytona—Volusia County plans reconstructing present concrete bridge over Halifax River; cement culvert and bulkhead; 30-ft. driveway; estimated cost \$135,000. Address County Comms.

Fla., Jacksonville—City Comsn. For full detail see Mch. Wanted—Bridge Construction.

Fla., West Palm Beach—Palm Beach County Comms., Hector Harris, Chrmn., build bridge across Lake Worth; also construct road; vote June 22 on \$100,000 bonds.

Ga., Athens—Clarke County will build bridges across Oconee River at River St., and across Oconee River at Oconee St.; improve roads; vote July 12 on \$15,000 bonds. Address The Mayor.

Kentucky—State Highway Comsn., Frankfort, Ky., build 12 bridges. For full detail see Mch. Wanted—Bridge Construction.

Ky., Ashland—Boyd County Fiscal Court let contract to Champion Bridge Co. to build bridge across Big Sandy River at mouth of Paint Creek; construct road from bridge to mouth of Buffalo Creek; build bridge across Buffalo Creek.

Ky., Williamstown—Grant County Fiscal Court, will build 2 bridges. For full detail see Mch. Wanted—Bridge Construction.

La., Mermentau—Acadia County plans building bridge over Mermentau River. Address County Comms.

La., Monroe—Ouachita Parish Police Jury plans expending \$10,000 to build Chauvin and Fairbanks bridges.

Missouri—State Highway Dept., Jefferson City, Mo., plans building following: Stoddard County, 80-ft. steel truss span, wooden floor; 2 reinforced concrete abut-

ments; 18-ft. roadway; on State road from Dudley, east and west; Sta. 440 plus 00; \$7065.75; Federal Aid Project No. 178 A; M. S. Murray, Div. Engr., Sikeston, Mo.

Mo., Carrollton—State Highway Dept., Jefferson City, Mo., build bridge in Carroll County across Missouri River on Lakes to Gulf Highway; \$32,000.

Mo., Fulton—Callaway County Comms. will expend \$50,000 to build 2 bridges and several culverts and resurface in Fulton Special Road Dist.; P. D. Thurmond, Engr.

Mo., Glasgow—Howard County, build bridge over Missouri River; voted \$105,000 bonds. Address County Comms.

Mo., Miami—Saline County, build bridge across Missouri River; voted \$300,000 bonds. Address County Comms.

South Carolina—State Highway Dept., Columbia, S. C., will build 2 bridges. For full detail see Mch. Wanted—Bridge Construction.

S. C., Barnwell—State Highway Dept., Columbia, For full detail see Mch. Wanted—Bridge Construction.

S. C., Moncks Corner—State Highway Dept., Columbia, S. C. For full detail see Mch. Wanted—Bridge Construction.

Tex., Ballinger—Runnels County let contract to S. B. Heath, Midland, Tex., at \$16,068.51 to build reinforced concrete bridges and culverts on Ballinger-Ablene Highway; Paul Tremmner, County Judge; U. Stephens, County Engr.

Tex., Canadian—Hemphill County. For full detail see Mch. Wanted—Bridge Construction.

Tex., Sequin—City plans building concrete bridge over Walnut Branch on W. Market St.; Terrell Bartlett, Engrs.

Tex., Weatherford—Parker County Comms. Court let contract for 2 steel bridges; over Clear Fork, between Aledo and Annetta, and over Bear Creek south of Aledo.

West Virginia—State Road Comsn., Charleston, W. Va., let contracts for following:

Hampshire County, Bridge No. 803, Mechanicsburg Gap; superstructure; to Capitol Construction Co., Columbus, Ohio, at \$7788. Ohio County, Bridges Nos. 568 and 570; National pike; 70-ft. span pony truss each; concrete structures; to Capitol Construction Co., Columbus, O., at \$16,751.50.

Mason County, Bridges Nos. 795 and 796, 80-ft. span, steel deck truss each; superstructure; to Brookville Bridge Co., Brookville, O., at \$7861.80.

Canning and Packing Plants.

Fla., Auburndale—Auburndale Citrus Exchange will erect \$25,000 packing house.

Fla., Frostproof—Chase & Co. will erect citrus packing plant; 2 story; 85x150 ft.;

metal or iron supported material; capacity 8 cars daily; Geo. E. Williams, Special Representative.

Okla., McAlester—Chamber of Commerce interested in establishing packing plant.

Tex., Galveston—Louis Rosenthal Packing Co., 61st St. and Bldwy., Box 688, capital \$155,000, organized with Louis Rosenthal, Pres.; Chas. F. Hildebrandt, Secy.

Clayworking Plants.

Tenn., Graysville—Bricks—Dixie Coal, Lime & Clay Products Co., O. E. Thomas, Pres., will erect brick plant with daily capacity of 100,000 tons.

W. Va., Hookersville—Tile and Brick—The Muddlety Valley Clay Products Co., Porter Herold, Almorris, W. Va., Secy., lately noted incptd. with \$10,000 capital, will erect 2 sheds 120x20 ft.; mill construction. (See Mch. Wanted—Brick and Tile Plant.)

Coal Mines and Coke Ovens.

Ala., Birmingham—Alabama By-Products Corp., Morris Bush, Pres. let contract to Koppers Co., Pittsburgh, Pa., to install 25 additional ovens to plant at Tarrant City.

Ala., Tuscaloosa—Alabama Coal Co., capital \$20,000, incptd. by J. D. Henderson and Fleetwood Rice, Tuscaloosa; Hunter M. Smith, Birmingham, Ala.

Ky., Pikeville—Excelsior Bi-product Coal Co., capital \$125,000, incptd. by Charles K. Wagner, Robert Wallace and C. C. Frazier.

Ky., Viper—Liggett Coal Co., Hazard, Ky., organized with H. S. Adkins, Pres.-Mgr.; G. P. Foley, Secy.-Treas.; develop 1000 acres; purchased mines of Baker Coal Co. (Lately noted incptd., capital \$60,000.)

Md., Westernport—Welsh Brothers Coal Co., capital \$75,000, incptd. by James A. Jr., John R. and Lloyd L. Welsh.

Tenn., Chattanooga—West Virginia Coal Co., capital \$15,000, incptd. by F. O. Busbee, W. H. Workman and Thomas M. Lockhart.

Tenn., Chattanooga—Chattanooga Coke & Gas Co., L. T. Wolfe, Pres., relining coke ovens, to resume operations.

Va., Richmond—Dry Fork Smokeless Coal Land Corp., capital \$250,000, incptd. with Alfred B. Percy, Pres.; B. B. Adams, Secy.

W. Va., Williamson—Pike Pond Creek Coal Co., capital \$50,000, incptd. by S. H. Goodloe, Jr., P. D. Nelson and J. R. Wheary.

W. Va., Buckhannon—Pecks Run Coal Co., contemplates rebuilding power plant. (Lately noted burned at loss \$25,000.)

W. Va., Fairmont—Clark Coal & Coke Co., capital \$1,000,000, incptd. by Harry B. Clark, Jr., Thomas F. Robey and C. H. Waggoner.

W. Va., Huntington—K-D-C Coal Co., capital \$50,000, incptd. by J. A. Kelley, J. F. Grossenbach and A. J. Dalton.

W. Va., Wyoming County—Main Island Creek Coal Co., organized by A. J. Dalton and John A. Kelly, both Huntington, W. Va.; acquired approx. 52,000 acres coal and timber lands, develop.

W. Va., Yukon—Perdue Coal Co., capital \$75,000, incptd. by T. H. Perdue, W. D. Goode, Yukon; H. J. Brook, Huntington, W. Va.

Concrete and Cement Plants.

Va., Portsmouth—Concrete Products—Con-

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

crete Tie Corp., capital \$100,000, chartered with W. L. Seddon, Prest.; H. W. MacKenzie, Secy.; mfrs. concrete ties.

Cotton Compresses and Gins.

Ga., McBean—Warner & Collins, Geo. Warner, Prest. will construct cotton gin; ordinary construction; install 2 stand gin outfit. (See Mch. Wanted—Gin Outfit.)

Tex., Ballinger—Runnels County Gin, capital \$75,000, inctpd. by H. Glesecke, Oscar Pearson, H. W. Lynn.

Cottonseed-Oil Mills.

Ala., Shellman—Farmers' Cotton Oil Mill & Ginneries Co., capital \$50,000, inctpd. by W. J. Oliver, J. M. Bell, W. R. Terry.

Ga., Greensboro—Southern Cotton Oil Co. will install peanut shelling plant.

Drainage Systems.

Ala., Fayette—Fayette and Lamar County Drainage Dist. No. 1, Marion L. Coons, Secy., Board of Commrs. let contract to D. W. Robins, Tupelo, Miss. to construct drainage canal; about 2,500,000 cu. yds. excavation; Guy A. Hart, U. S. Drainage Engr., Box 1125, Montgomery, Ala.

La., Oak Grove—Eudora Western Drainage Dist. of Eudora, Ark. and representatives of Morehouse, West Carroll and Richland Parishes, contemplate dredging channel of Boeuff river from point in Chicot County to 3 or 4 mi. south of state line.

Miss., Belzoni—Honey Island Drainage Dist. Commrs. of Carroll, Holmes, Humphreys and Leflore Counties, having surveys made by Morgan Engineering Co. and Lamar Fontaine, Jr.; district includes 150,000 acres; contemplates building levee along west bank of Yazoo river. (Lately noted.)

N. C., New Berne—Beaufort County Drainage Dist. No. 10, Geo. Green, Chrmn., construct 43.4 mi. drainage canals in Craven and Beaufort Counties, 984,655 cu. yds. excavation, 434 acres right of way clearing, 14 wooden bridges; bids until July 8; B. M. Potter, Engr. (See Mch. Wanted—Drainage.)

Electric Plants.

Ala., Anniston—City considering installation of white way. Address The Mayor.

Ala., New Brockton—City will improve light system; votes on \$8500 bonds. Address.

Fla., Coconut Grove—City, will improve electric light system, voted \$10,000 bonds; install septic tank purchase equipment for disposal of sewerage, voted \$10,000 bonds;

street improvements, grading, etc. Address The Mayor.

Fla., Jacksonville—City Comsn. appointed Scofield Engineering Co., Phila., Pa., Consit. Engrs. for improvements to electric plant; install 10,000 K. W. generator; doubling capacity; cost \$280,000.

Fla., St. Petersburg—City will establish electric plant, voted \$300,000 bonds; develop Bayboro harbor, voted \$50,000 bonds. Address The Mayor.

Fla., South Jacksonville—City will construct auxiliary electrical power unit; J. N. Vernam, South Jacksonville, lowest bidder at \$12,400 for Sterling 240 H. P. engine, direct connected to 120 K. W. generator.

Fla., South Jacksonville—City, W. P. Belote, Mayor, will install power plant to replace burned equipment; internal combustion engine driven generating units; 120 K. W. each.

Ga., Athens—City contemplates installing white way. Address The Mayor.

Mo., Fulton—For full details see Water Works.

Mo., Gainesville—Walter Nash of Gainesville Light Co., interested in construction of transmission line from Trenton to Gainesville.

N. C., Charlotte—City will improve lighting system; J. E. Honeycutt, Commr. Public Safety.

N. C., Hobgood—City, E. L. Bradley, Clk. will construct electric light plant; will issue \$10,000 bonds.

Okla., Duncan—City let contract at \$64,505 for installation of electrical distribution system, including white way. Address The Mayor.

Okla., Locust Grove—City will improve electric light system; voted \$20,000 bonds. Address The Mayor.

Okla., Tulsa—Mid-West Utilities Co., 72 W. Ada St., Chicago, Ill., reported to erect power plant.

S. C., Sumter—City will install white way on Main and Liberty Sts. Address The Mayor.

Tex., Austin—St. Edwards College, Very Rev. Matthews, Prest., is having plans prepared by A. W. Harris, % Gresecke & Harris, Archts., Littlefield Bldg., Austin, for power house.

Fertilizer Plants.

Fla., Jacksonville—T. L. Long of Federal Phosphoric Co., Birmingham, Ala., reported interested in establishing fertilizer plant.

Flour, Feed and Meal Mills.

Ala., Mobile—Dixie-Portland Flour Mills,

Memphis, Tenn.; C. B. Barnes, local Mgr., has 4 story building at 166 Commerce St., will remodel and install inchy. for flour mill; cost about \$15,000.

Ky., Boyd—Boyd Milling Co., increased capital to \$31,000.

Md., Sandy Springs—R. H. Lansdale will rebuild burned flour mill; 50x32 ft. mill construction; daily capacity 50 bbl. flour.

Mo., Kansas City—Western Grain Co., capital \$50,000, inctpd. by C. M. Woodward, F. G. Endelman, H. S. Strain.

Tex., Ft. Worth—Universal Milling Co., let contract to Jones-Hettlesater Constr. Co., 706 Mutual Bldg., Kansas City, Mo., to construct feed mill.

W. Va., Charleston—Charleston Milling & Produce Co., increased capital to \$300,000.

Foundry and Machine Plants.

Ark., Little Rock—Furnaces, etc.—Nelson Mfg. Co., Deerfield, Wis., plans erecting plant, purchased 129x140-ft. site.

Ark., Little Rock—Castings — Arkansas Foundry Co., F. I. Brown, Mgr., 1500 E. 6th St., let contract to Hermann McCain Construction Co. to erect \$20,000 mill construction building, install complete core room equipment; daily output 15 to 20 tons grey iron castings.

Fla., Tampa—Freight Elevators—Electric Motor Co., erect additional building, install mch.; mfrs. motor driven freight elevators.

La., Shreveport—Acetylene Equipment, etc.—Cunningham Machine Works, (lately noted inctpd.) L. T. Cunningham, Prest.; G. F. Cunningham, V.-P. and Treas., Youree Hotel; has buildings and equipment, except 36-in. lathe and 36-in. open side planer; mfrs. acetylene equipment, etc. (See Mch. Wanted—Lathe; Planer.)

Mo., Stuart—Sewer Pipe — Consolidated Steel & Iron Corp., establish plant for mfr. of sewer pipe, cast iron and steel products.

Tenn., Memphis—Gear and Parts—Southern Gear & Parts Co., capital \$10,000, inctpd. by C. S. Dealing, C. L. Avery and E. S. Craig.

Tex., El Paso—Engines and Parts—Virico Ring Co., capital \$50,000, inctpd. by H. Y. Ellis, 501 W. Yandell Blvd., J. D. Foster and A. R. Burge; mfrs. combustion engines and parts.

W. Va., Huntington—Machinery—Universal Machine & Mfg. Co., capital \$25,000, inctpd. by G. O. Rhodes, J. M. Power and J. M. Rigg.

W. Va., West Union—Machine Shop, etc.—West Union Machine & Supply Co., (lately

OPPORTUNITIES FOR NEW BUSINESS

THROUGH THE

DAILY BULLETIN

Manufacturers of Machinery and Equipment, Dealers in Railroad and Contractors' Supplies, as well as Architects, Contractors and Builders, find it very profitable to follow up the advance news furnished through our **DAILY BULLETIN** EVERY BUSINESS DAY IN THE YEAR. It is an authoritative, prompt source of information concerning every industrial and railroad undertaking of any consequence, and likewise all important building operations and municipal improvements in the whole South. The opportunity of getting in correspondence with firms that are in the market is afforded by a daily perusal of its columns.

MANUFACTURERS RECORD

BALTIMORE, MD.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

noted inceptd., capital \$50,000) organized with W. D. Gribble, Prest., W. L. Lynn, Secy.-Treas. and Mgr.; install 24"x14 ft. lathe, 20-in. shaper, power hack saw, 100 K.W., A.C. generator and necessary equipment for complete electric unit; bids any time in June. (See Mch. Wanted—Electric Light Plant Equipment; Machine Shop Equipment.)

Gas and Oil Enterprises.

Ala., Mobile—Patterson Oil & Export Co., capital \$625,000, inceptd. by L. J. Davis, H. S. and H. W. Patterson.

Ala., Montgomery—Alabama-El Dorado Oil Co., inceptd. with A. H. Hill, El Dorado, Ark.; Prest. Fred Solomon, V.-P.; Julius Hesslien, Secy.

Ky., Lexington—Ky-Ind-Oil Co. Corp., capital \$100,000, inceptd. by Geo. N. Snyder, S. G. Smelser, both of Richmond, Ind., Z. O. Avry, Lexington, Ky.

Mo., Kansas City—Pioneer—Benzo Distributing Co., capital \$100,000, inceptd. by L. F. Carthy, A. Makinson, E. A. Scholer.

Ky., Paducah—Paducah Electric Co., A. S. Nichols, Gen. Mgr., will construct high pressure gas main; cost about \$13,000.

La., Sterlington—Union Power Co., purchased 15 acre tract, erect pumping station to pump gas to other parts of Louisiana and Texas; cost \$250,000.

Mo., Columbia—Gas Plant—City will vote on \$100,000 bond issue to purchase and improve Columbia Gas Works. Address The Mayor.

Okla., Coweta—Solar Products Co. will construct gasoline plant; construction begun.

Okla., Tulsa—J. C. Cooke Oil & Gas Co., capital \$2,000,000, inceptd. by J. C. Cooke, Ardmore, H. F. Wilcox, G. A. Dye, all of Tulsa.

Tenn., Nashville—Superior Oil Corp., capital \$25,000, chartered by H. B. Hammond, E. W. Turnley, C. M. Carroll.

Tenn., Nashville—Nashville Refining Co., capital \$250,000, inceptd. by W. F. Eakin, C. H. Upper, C. V. King.

Tex., Ballinger—Ballinger Oil Mill, capital \$75,000, inceptd. by H. Giesecke, Oscar Pearson, H. W. Lynn.

Tex., Dallas—Dallas Gas Co., Henry C. Morris, V.-P. and Gen. Mgr. has plans for improvements; lay about 20 mi. new mains; construct building for garage, warehouse and machine shop; cost about \$325,000.

Tex., Orange—Gate City Oil Co., capital \$75,000, inceptd. by F. H. Farwell, Rees Davies, Mrs. Ruth M. Pausinger.

Tex., San Antonio—K. W. B. Drilling Co., capital \$10,000, inceptd. by J. K. Kepley, S. V. White, W. L. Beckham, Jr.

Tex., San Antonio—La Pryor Oil Gas Co. increased capital to \$40,000.

Tex., Winters—Winters Oil Mill, capital \$75,000, inceptd. by H. Giesecke, Oscar Pearson, H. W. Lynn.

Va., Norfolk—Prospect Holding Corp., capital \$100,000, inceptd. with B. S. Stanfield, Prest.; F. S. Taylor, Secy.

Va., Winchester—American Gas Improvement Co. of New York, acquired plant of Winchester Gas Co.; purchased additional land; will erect new plant.

W. Va., Bramwell—Cooper Jennings Filling Station, capital \$5,000, inceptd. by Edw. Cooper, Jr., W. H. Boyce, B. D. Fiegman.

W. Va., Charleston—White Sand Petroleum Co., capital \$1,000,000, inceptd. by S. L. Walker, H. Greene, D. L. Cook.

W. Va., West Union—Doddridge Oil & Gas

Co., organized with J. E. Smith, Prest.; W. F. Maury, V.-P.; I. E. Ewing, Secy.

Hydro-Electric Plants.

Ala., Aliceville—J. V. Park interested in construction of hydro-electric plant on Sipsey River; cost about \$50,000.

Mo., Cassville—R. P. Bruner, Kansas City, Prop., of Roaring River spring resort let contract to Will F. Plummer, Springfield, to construct concrete dam and electric light plant at resort.

Ice and Cold-Storage Plants.

Fla., Panama Park, Jacksonville—Milldale Ice Co., S. S. Simmons, Mgr., rebuild plant burned at loss of \$30,000 to \$40,000.

Ky., South Carrollton—Spring Water Ice Co., (lately noted inceptd., capital \$12,000) organized with J. F. Wolcott, Prest.; J. D. Wheelodon, Secy.-Treas. and Mgr.; has building and equipment installed, daily capacity 8 tons.

Miss., Natchez—Natchez Ice Co. plans erecting ice plant on Canal St., daily output 25 tons, storage capacity 2000 tons.

N. C., Rutherfordton—Peoples Ice & Fuel Co., organized by R. L. Taylor and others, establish ice plant on 2nd St., daily output 15 tons, with storage capacity of 150 tons.

Land Developments.

Ala., Birmingham—Sudduth-Matthews Realty Co., inceptd. by E. W. Sudduth, H. L. Sudduth, G. S. Matthews.

Ala., Birmingham—Enslin Realty Co., inceptd. by S. C. Enslin, Fred E. and K. D. Enslin.

Ala., Eufaula—Alabama Pecan & Products Co., capital \$60,000, inceptd. by A. G. Ruggles, Geo. W. Peake, C. F. Mallory.

Fla., Lake Worth—City planning to purchase 147 acres of land for golf course, club, etc.; probably vote on \$50,000 bonds. Address The Mayor.

Fla., Rockledge—Peerless Groves, capital \$30,000, inceptd. with R. E. Hightower, Prest.; M. L. Hightower, V.-P.; L. B. Miller, Secy.

Fla., Sandford—Rose Court, capital \$50,000, inceptd. with Samuel Puleston, Prest.; Edw. Higgins, V.-P.; R. C. Maxwell, Secy.

Fla., Sebring—Sebring Lake Groves Co., capital \$10,000, inceptd. with John E. Graham, Prest.; Ed. L. Hainz, V.-P.; A. C. Heacock, Secy.

Ga., Albany—Bedess Pecan Co., capital \$30,000, inceptd. by R. E. L. Spence, R. W. Bingham, W. W. Davies; develop 1700 acres in pecans.

Ga., Albany—Peerless Pecan Co., capital \$50,000, inceptd. by J. A. Davis, Ben Adler.

Ga., Columbus—Suburban Realty Co., capital \$25,000, inceptd. by Simon Schvob, Leon B. Wolfson, Meyer A. Goldstein.

Ga., Quitman—Oaks Farms Co., capital \$75,000, inceptd. by W. T. Calhoun, D. G. and J. H. Malloy.

La., New Orleans—United Realty Co. interested in development of Beverly Knoll as residential suburb.

Md., Baltimore—Dundalk Realty & Investment Co., 3 Bayship Rd., Dundalk, capital \$10,000, inceptd. by Frank L. Gallatin, Chas. F. Krite, Wm. D. Donovan.

Md., Baltimore—Blackwell Realty Co., 1102 Clendenan St., capital \$60,000, inceptd. by Joshua H. Skinner, J. Samuel Taylor, Franklin L. Wilson.

Md., Hagerstown—Eastern Development Co., 15 N. Jonathan St., capital \$5,000, inceptd. by John L. Whitmore, Howard P. Hartman.

Mo., St. Louis—Kingshighway Park Realty Co., capital \$100,000, inceptd. by Edith E. Prettyman, Robt. C. Schapler, Emma L. Schapler.

S. C., Spartanburg—Spartanburg Nursery Co., capital \$50,000, inceptd. with Arch. C. Calvert, Prest.; C. O. Allen, Treas.; L. B. Smith, Mgr.; develop 100 acres for nursery; approx. cost \$50,000. (Lately noted.)

Tenn., Memphis—Memphis Investment Co. will develop 75 acres for residential site.

Tex., Waco—Tom Hewett, Purdon, purchased 400 acres; develop for stock farm.

Va., Bristol—Elmwood Cemetery Assn. purchased 30 acre tract; develop for cemetery; about \$100,000 to be expended.

Va., Cumberland—Corson-Davis Construction Co., capital \$50,000, inceptd. with Chas. C. Corson, Guinea Mills, Prest.; Henry A. Davis, Cumberland, Secy.

W. Va., Richwood—Nicholas Realty Co., Richwood, and B. E. Hamrick, West Union, W. Va., purchased 30 acres; develop for subdivision.

Lumber Manufacturing.

Ala., Atmore—Swift Lumber Co., G. R. Swift, Prest.-Mgr., Knoxville, Miss., contemplates erecting saw mill, dry kilns, etc. in 1923; construction by owners' estimated output 75,000 ft. daily.

Ala., Birmingham—Superior Lumber Co., capital \$10,000, inceptd. by Daniel J. Duffee, W. J. Kelly and C. E. Barnes.

Ark., Rogers—Hamby & Roberts, Berryville, Ark., erect lumber mill, mch. purchased.

Ga., Athens—Athens Saw & Planing Mill Co., (lately noted inceptd., capital \$10,000) organized with V. J. Moss, Prest.-Treas. and Mgr.; S. J. Moss, Secy.; has buildings; installed moulder, planer, saw mill, boiler, etc., all purchased.

Ga., Savannah—Chatham County Lumber Co., capital \$15,000, inceptd. by E. F. Gregorie, 347-5th Ave., and D. H. Coddington, 67 W. 52nd St., both New York City; J. W. Gregorie, Savannah.

Ky., Jackson—Jackson Lumber & Supply Co., H. W. Cole, Mgr., rebuild plant. (Lately noted burned.)

Miss., Hattiesburg—Love Lumber Co., R. N. Stadman, Prest., Poplarville, Miss., plans installing additional boiler and engine, steam dry kiln, etc.; purchased timber tract adjacent to present holdings, develop.

Metal-Working Plants.

Md., Baltimore—Marine Engine Repairing, etc.—Unger & Mahon, increased capital to \$35,000.

Md., Baltimore—Tools, etc.—B. B. C. Specialty Co., Equitable Bldg., capital \$100,000, inceptd. by S. Proctor Brady, George Brown, Jr., Howard D. Chapman.

Mo., Kansas City—Electrical Shop—Spaulding Electrical Co., 220 E. 11th St. (lately noted inceptd., capital \$20,000) organized with L. W. Spaulding, Prest.-Treas. and Mgr.; Lena M. Dunnica, Secy.; install mch. for light electrical and radio shop work. (See Mch. Wanted—Electrical Shop Equipment; Stove (Fireless).)

Mo., Kansas City—Gas Burner—Adcox Oil Gas Burner Co., capital \$25,000, inceptd. by A. D. Adcox, W. L. Morrison and A. L. Van Arsdale.

Tex., Houston—Shock Absorber—Lomar Shock Absorber Co., capital \$10,000, inceptd. by H. A. and F. M. Varner, L. J. McLaughlin.

Tex., Waco—Electric Shaving—Jones Electric Shaving Machine, capital \$100,000, inceptd. by W. A. Parker, Prest.; S. P. Jones, Secy.

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Va., South Boston—Metal Products—South Boston Mfg. Co., capital \$100,000, inceptd. with D. W. Owens, Prest.; J. O. Watkins, Secy.

Mining.

Md., Texas — Limestone, etc.—Maryland Calceite Co., capital \$100,000, inceptd. by Raymond L. Lovell, Richard E. Tome and Palmer R. Nickerson.

Okla., Valliant—Asphalt—American Rock Asphalt Co., capital \$100,000, inceptd. by H. C. Clark, Valliant; Ralph P. Taylor and T. E. Webber, both Texanna, Okla.

Tex., Greenville—Lignite—Lignite Industries Corp., Carl Jaeger, Prest., St. Paul, Minn., reported to establish plant for mfr. of lignite products; estimated daily capacity 6,000,000 cu. ft. of gas, 300 tons briquettes and 72 tons of coal tar; plant to be operated by Greenville Gas Co.

Va., Esmont—Soapstone—Albemarle Soap Stone Co., capital \$150,000, inceptd. with H. P. McCary, Prest.; E. W. Scott, Jr., Secy.

Miscellaneous Construction.

Fla., St. Petersburg—Harbor Improvements—For full detail see Electric Light Plant.

Fla., Key West—Breakwater, etc.—Navy Dept., Bureau of Yards and Docks, Washington, D. C., construction of \$1,800,000 submarine base nearing completion; additional work proposed includes \$250,000 marine railway, \$25,000 improvements to power plant, install coal handling mch., \$15,000.

La., Alexandria—Levee—Red River, Atchafalpa and Bayou Boeuf Levee Board construct line of levees from Bayou des Glaives levee to Prairie Hill in Avoyelles parish, rebuild old levee injured by high water; will issue \$250,000 bonds.

Md., Baltimore—Towers—Standard Guano Co., Continental Bldg., let contract to Whiting-Turner Construction Co., Stewart Bldg. to erect towers to utilize waste gases from fertilizer and acid plant at Curtis Bay; approximate cost \$50,000.

Miss., Jackson—Levee—Yazoo-Mississippi Delta Levee Board, expend \$65,000 on building ¼-mi. embankment in rear of present levee, 250,000 cu. yds. construction work.

Va., Norfolk—Elevators—City let contract to Electro-mechanical Co., 432 N. Calvert St., Baltimore, Md., for electrical work on municipal elevator now under construction; \$50,000 to \$60,000.

Miscellaneous Enterprises.

Ala., Birmingham—Engineering—Southern Industrial Engineering Co., capital \$10,000, inceptd. with S. C. Bratton, Prest.-Treas.; Hoyt D. Self, Secy.

Fla., Daytona—Undertaking—Bingham & Maley Undertaking Co., capital \$15,000, inceptd. with A. L. Yelvington, Prest.; A. P. Jones, Secy.-Treas.

Ga., Waynesboro—Elevator—Gary Vinson, interested in rebuilding burned grain elevator.

Md., Baltimore—Slaughter House—Louis H. Rettberg, Inc., 2823 Pennsylvania Ave., capital \$100,000, inceptd. by Louis H., John C. and Mattie Rettberg.

Md., Baltimore—Theatre—New Pickwick Theatre Co., 28 W. Lexington St., capital \$26,000, inceptd. by Thos. D. Goldberg, Myron S. Cotton and Roy M. Nichols.

Md., Baltimore—"23 East Baltimore St., Inc.," 1010 Keyser Bldg., capital \$400,000, inceptd. by J. Henry Miller, Clyde N. Friz, Robt. J. Gill.

Md., Baltimore—Apartments—Stratford Apartment Co., 562 University Parkway, capital \$30,000, inceptd. by Fulton E. Yewell, George S. Yost and Chester F. Morrow.

Md., Baltimore—Dairy—Clover Dairy, 1036 Rutland Ave., capital \$40,000, inceptd. by John F. Michael, Constantine Rist and Vernon J. Albrecht.

Md., Baltimore—Engineering—Heer Brothers, 1 N. Paca St., inceptd. by Charles G. and Wm. J. Heer, John S. Mahle.

Md., Baltimore—Laundry—Archer's Laundry, Inc., Mulberry and Howard Sts., capital \$700,000, inceptd. by Joseph and Carolina Archer, George Edward Saffrain.

Md., Salisbury—Theatre—United Theatre Corp. of Crisfield, capital \$50,000, inceptd. by Henry W. Conant, George S. White and Lee W. Insley.

Mo., Fenton—Catering—Meramec Catering & Investment Co., capital \$20,000, inceptd. by Frank Weiss, Jr., William Behre and J. B. Seibert.

Mo., Kansas City—Engineering—R. W. Cropper Engineering Co., capital \$50,000, inceptd. by R. W. Cropper, F. M. Davis and L. M. Dean.

Mo., St. Joseph—Construction—Allison-Dillingham Construction Co., capital \$12,000, inceptd. by Charles W. Dillingham, St. Joseph; William P. and Henry A. Allison, DeKalb, Mo.

Mo., St. Louis—Printing, etc.—Missouri Republican Publishing & Printing Co., inceptd. by William Sessinghaus, H. Wilkerson and C. C. Beck.

Mo., St. Louis—Hardware—Lehman Hardware Co., capital \$15,000, inceptd. by G. E. and S. W. Lehman, W. I. Moon.

Mo., St. Peters—Elevator, etc.—Farmers Co-operative Elevator & Mercantile Assn., capital \$25,000, inceptd. by Henry Zumbel, George Boettler and Frank Zerr.

Mo., Trenton—Poultry—Trenton Poultry Co., capital \$10,000, inceptd. by C. F. Jones, H. G. Kull and T. J. Robertson.

N. C., Greensboro—Amusements—National Amusement Co., increased capital to \$320,000.

Okla., Oklahoma City—Construction—American Home Builders, capital \$25,000, inceptd. by Thomas S. Manning, J. R. Bondurant and others.

S. C., Eau Claire, P. O. Columbia—Mineral Water—Bellevue Mineral Springs Co., inceptd. with H. A. Lindfors, Prest.; J. R. Cotler, Jr., Secy.-Treas.

Tenn., Nashville—Printing—McQuiddy Printing Co., capital \$150,000, inceptd. by J. C. and L. B. McQuiddy, J. R. Jones.

Va., Norfolk—Building Supplies—Freeman Supply Corp., capital \$50,000, inceptd. with Everett Armstrong, Prest.; Charles E. Sims, Secy.

Miscellaneous Factories.

Ala., Mobile—Bakery—P. R. Blalack Baking Co., inceptd. by Price B. Blalack, John Ingersoll, Joseph Griffin.

Fla., Jacksonville—Coffee—Seminole Coffee Mills, capital \$15,000, inceptd. with B. C. Willis, Prest.; Geo. F. Evans, Treas.; B. C. Evans, Secy.

Fla., Lakeland—Shoes—Florida Shoe Mfg. Co., lately noted inceptd. with \$50,000 capital, Paul Hendrick, Prest., has plant with daily capacity of 500 prs. shoes, install mch. (See Mch. Wanted—Machines (Shoes)); Lasts and Patterns (Shoe); leather, etc. (Shoe.)

Md., Baltimore—Druggists Supplies—Dento Products Corp., 1101 Madison Ave., capital \$100,000, inceptd. by Ellis G., Esther Krupnick, Max Margolin.

Md., Baltimore—Bakery—Becker Baking Co., 2500-10 W. Booth St., let contract to ditto to bakery in rear of present building; Ed. Walsh, 202 N. Sharp St., to erect ad-

1 story; brick; 75x48 ft.; mill construction; cost about \$8000; install three ovens and new machinery, cost about \$6000.

Md., Baltimore—Clothing—A. M. Cohen Sons Co., 219 W. Baltimore St., capital \$75,000, inceptd. by Sarah, Hymen K. and Meyer Cohen.

Md., Cumberland—Construction—Queen City Construction Co., capital \$25,000, inceptd. by Charles J. Coyle, John T. Walley and John J. Kearney.

Md., Sykesville—Ice Cream—Sykesville Mfg. Co., capital \$10,000, inceptd. by Harry M. Phelps, Robt. L. Swain, Asa Hepner.

Mo., Farmington—Bottling—Coca Cola Bottling Co., capital \$12,000, inceptd. by G. N. and W. R. Cox, M. B. Reese.

Mo., Kansas City—Serum—Peters Hog Serum Co., inceptd. by Wm. G. Peters, E. S. Penay, Ed. Fortune.

Mo., Kansas City—Candy—Welborn Candy Co., inceptd. by W. D. Welborn, Emil Bremer, A. C. Hassenpflug.

Mo., St. Louis—Shoes—Fore Shoe Co., capital \$15,000, inceptd. by J. W. Krause, Charles Schuerman, Louis Kane.

Mo., St. Louis—Battery—Peters Battery Co., capital \$10,000, inceptd. by F. W. Peters, C. H. Peters, F. G. Hume.

N. C., Lenoir—Mirrors—Union Mirror Co., inceptd. with F. H. Coffey, Prest.; W. H. Hill, Secy.; construct frame building, 60x150 ft.

Okla., Oklahoma City—Radio Supply Co., capital \$50,000, inceptd. by C. H. Klyver, H. E. McMahan.

Okla., Tulsa—Battery—Osage Battery Co., lately noted inceptd., organized with Dr. J. C. Warmack, Prest.; T. J. Renfree, Mgr. has plant; mfr. storage batteries.

S. C., Columbia—Bakery—Electric Maid Bake Shop, capital \$5000, inceptd. with B. G. Saunders, Prest.; T. A. Emerson, V. P.; O. H. Bissell, Jr., Secy.

S. C., Columbia—Bottling—Bellevue Mineral Springs Co., inceptd. by J. R. Cotter, H. A. Lindsors, J. R. Cotter, Jr.

S. C., Greenville—Marble—Roman Marble & Tile Co., inceptd. with F. Cameriero, Prest.; A. H. Price, V. P.

S. C., Summerton—Palmetto Drug Co., capital \$5000, inceptd. with Thos. J. Davis, Prest.; H. J. Plowden, V.-P.; W. W. Davis, Secy.

S. C., Sumter—Radio—Sumter Radio Mfg. Co., inceptd. with C. H. Wilson, Prest.; H. C. Tucker, V.-P.; L. E. Rhame, Secy.

S. C., Union—Clothing—Mullinax-Faucett Clothing Co., capital \$10,000, inceptd. with B. G. Faucett, Prest.; F. E. Gault, V.-P.; D. W. Mullinax, Secy.

Tenn., Jacksboro—Hardware—Campbell County Hardware Co. (lately noted inceptd., capital \$25,000) organized with S. J. Parks, Prest.; J. L. T. Shown, Secy.-Treas.; erect 2 story 48x60-ft. brick building, 2 warehouses of galvanized iron siding and roof; install hardware supplies including farm mch., fertilizers, cement, tile, mine supplies, dynamite, seeds, etc. (See Mch. Wanted—Hardware Supplies, etc.; Farm Machinery; Fertilizers; Mine Supplies; Dynamite, etc.)

Tenn., Memphis—Chemical—Bi-Chemical Co., capital \$5000, inceptd. by H. S. Austin, Karl Wood, R. W. Snell.

Tenn., Nashville—Novelties—Sanders Mfg. Co., capital \$30,000, inceptd. by Alfred T. Adams, R. E. Clegebern, M. P. O'Connor.

Tenn., Nashville—Candy—Ukaneat Co., capital \$250,000, inceptd. by W. C. Wade, W. L. Burcham, Wm. S. Noble.

Tex., Dallas—Garments—Mincer Garment Mfg. Co., increased capital to \$50,000.

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Tex., Lake Wales—Chemical—Childers Bros. Chemical Co., capital \$10,000, inceptd. with Reuben R. Childers, Prest.; Geo. E. Childers, V.-P.; P. M. Childers, Secy.

Va., Harrisonburg—Incubator—Newton Giant Incubator Corp., Jno. P. Burke, Mgr., will rebuild plant, lately noted; 74x114 ft.; 8 stories; brick and iron; mill construction; cost about \$25,000; contracts for material let; bids for machinery open. (See Mch. Wanted—Woodworking Machinery.)

Va., Norfolk—Drugs—Owlet Drug Co., capital \$25,000, inceptd. with Brantley L. Topky, Louisville—Filling Station—Aetna Re-

Va., Richmond—Fibre Containers—Fibre Board Container Co., David J. Donati, Prest., 3014 E. Broad St., let contract to C. C. Rice, Fulton, Va. to erect building 30x175 ft.; corrugated iron; will install corrugating machinery.

W. Va., Grasselli, P. O. Clarksburg—Drugs—M. F. Suarez & Co., capital \$25,000, inceptd. with M. F. Suarez, Prest.; Francesco Alvarez, Secy.

W. Va., Wheeling—Laundry—Family Wash Laundry Co., erect building on Mount Wood road.

Motor Cars, Garages, Tires, Etc.

Ala., Birmingham—Tires, etc.—Birmingham McGraw Tire & Rubber Co., inceptd. with Robert W. Sawyer, Prest.; Clarence Mullins, Treas.; H. Blacklock, Secy.

Ala., Birmingham—Motors—Wier Brothers Chaffair It Yourself Co., inceptd. by R. M. L. O. and C. E. Wier.

Ala., Mobile—Automobiles—R. T. Ellis Motor Co., capital \$25,000, inceptd. with J. W. McWilliams, Prest.; Walton L. Sink, Secy. Treas.

Fla., Perry—Motors—Parker Motor Co., capital \$30,000, inceptd. by J. H. Parker, Prest.; B. C. Perkins, Secy.

Ky., Ashland—Garage—Wurts Bros., erect 1 story 50x92-ft. garage.

Ky., Lexington—Garage—Goodwin-Field Motor Car Co., 250 E. Main St., erect 1 story, 100x200-ft. public garage, brick and reinforced concrete.

Ky., Louisville—Garage—Jacob Levy, 949 S. 3rd St., erect 1 story garage.

Ky., Louisville—Automobile Parts—Saylor Auto Parts Co., increased capital to \$20,000.

Ky., Louisville—Filling Station—Aetna Refining Co., erect gasoline filling station at 5th and Liberty Sts., capacity 12 pumps; \$10,000.

Ky., Louisville—Garage—Jefferson County Commrs. erect fireproof garage on 6th St.; bids opened June 15; heating system awarded under separate contract; Brinton B. Davis, Archt.

Ky., Louisville—Garage, etc.—Nash Motor Car Co., erect 1 story 35x60-ft. concrete garage, 14x20-ft. office building and 40x35-ft. storage station.

La., Baton Rouge—Motors—Wright Steam Motor Co., capital \$10,000, inceptd. by J. B. Wright, Prest.-Secy. and Treas.

Md., Baltimore—Motors—Lafayette Motors Corp., 101 E. Fayette St., capit \$30,000, inceptd. by Roger Ernst, Arthur H. Morse and Reginald Gray.

Md., Baltimore—Automobiles—Hupmobile Auto Agency, 107 W. Mount Royal Ave. leased 70x150-ft. building, erect 2 story addition; et contract to John J. Moylan, 538 N. Calvert St.

Md., Baltimore—Garage—Simon Malken, 1136 E. Pratt St., let contract for erection of 1 story, 60x60-ft. garage; William J. Degenhardt, Archt.

Md., Cumberland—Motors—Motor Inn, 15

Glenn St., capital \$30,000, inceptd. by Homer C. Brooks, Ray C. and Herbert W. Browning.

Md., Hagerstown—Automobiles—American Automotive Corp., 24 N. Locust St., capital \$100,000, inceptd. by George W. Dodge, George J. Porter and Charles H. Bowers.

Mo., Kansas City—Garage, etc.—Pyramid Motor Service Co., inceptd. by G. M. Godley, R. R. Davis and F. J. Thompson.

Mo., St. Louis—Automobile Accessories—South Side Motor Sales Co., capital \$20,000, inceptd. by James Lytle, D. M. Anderson and W. O. Nolan.

Mo., St. Louis—Garage, etc.—Missouri Motor Sales Co., capital \$35,000, inceptd. by G. R. Hutchings, Wilbur Van Scoik and W. A. Brady.

N. C., Asheville—Filling Stations—Gulf Refining Co., main office Pittsburgh, Pa. plans erecting at Lodge St. and Hendersonville road, Biltmore, \$10,000 filling station; at Mark and Walnut Sts., Asheville, \$6000 station; at Biltmore and S. Ann Sts., \$5000 station; also leased tract to erect storage tanks, capacity several thousand gals.; plans by S. C. Cooper.

N. C., Charlotte—Automobiles—Carolina Automobile Co., capital \$50,000, inceptd. by W. D. and John L. Wilkinson, T. T. Caldwell.

S. C., Aiken—Garage, etc.—Osa B. Hudson let contract for construction of garage and storage house on Pendleton and Curve Street.

S. C., Orangeburg—Orangeburg Hudson Co., inceptd. by B. R. and A. B. Bennett, H. W. Pearce.

S. C., Ridgeland—Motors—Wilburn-Owens Motor Co., capital \$15,000, inceptd. with S. R. Owens, Prest.; W. W. Wilburn, Secy.

Tenn., Chattanooga—Motors—Buick-Cadillac Co., capital \$100,000, inceptd. by Emmet S. Newton, W. M. Hardwick and E. D. Walter.

Tenn., Knoxville—Automobile—Hold-Em-Tite Auto Seat Co., increased capital to \$25,000.

Tenn., Knoxville—Motors—Knoxville Buick Co., capital \$50,000, inceptd. by R. G. and James A. Wright, H. Justus.

Tenn., Memphis—Garage—O. K. Storage, 234 Jefferson St., erect \$16,000 garage building.

Tenn., Nashville—Repairing—Auto Storage & Repair Co., capital \$50,000, inceptd. by M. S. Ross, H. O. and W. S. Balls.

Tex., Dallas—Automobile Parts—Dallas Parts Service Co., inceptd. by W. F. Rose, W. A. Fosdick and C. L. McNulty.

Tex., Dallas—Motors—Wharton Motors Co., capital \$50,000, inceptd. by Thomas P. Wharton, L. D. Heckman and R. H. Campbell.

Tex., El Paso—Automobile Parts—Car Parts Depot, inceptd. by A. E. Graves, B. E. Ryan and F. F. Klohs.

Tex., Houston—Automobiles—Brazos Valley Buick Co., capital \$100,000, inceptd. by A. S. Sory and Lawrence Bryant, both Houston; H. H. Bryant, San Antonio.

Va., Big Stone Gap—Garage—H. C. Stuart, erect 2 story, 79x100-ft. brick garage.

Va., Christiansburg—Garage—Barnes Surface Co., erect 1 story 100x150-ft. garage, 1st and Walter Sts.

Va., Richmond—Automobiles—Parker Mfg. Co., capital \$50,000, inceptd. with B. E. Parker, Prest.; Nina C. Brett, Secy.

W. Va., Bramwell—Filling Station—Cooper Jennings Filling Station, inceptd. by Edward Cooper, Jr., F. C. Jennings and W. H. Boyce.

W. Va., Charleston—Garage—Excell Body & Fender Repair Co., capital \$10,000, inceptd. by W. A. Walker, K. Bennington and Sam Cummings.

W. Va., Huntington—Automobiles—Huntington-Buick Co., Fred A. Knight, Gen. Mgr., plans improvements to building.

Railway Stations, Sheds, Etc.

Md., Baltimore—Pennsylvania Railroad is inviting bids for raising tracks and revising line on the Northern Central Railway near Phoenix, Md., 17½ mi. north of Baltimore. About 135,000 yds. excavation, 1300 yds. masonry, 2 mi. of track material to be unloaded, distributed and laid, also 5000 yds. of ballast to be unloaded and surfaced, besides other work. J. W. Craig, Asst. Engr., Baltimore, in charge.

Md., Hagerstown—Pennsylvania Railroad asks bids to complete engine terminal facilities at Hagerstown. About 13,500 yds. excavating, 2000 yds. concrete masonry, 2½ mi. of track material to be unloaded and laid, 28 turnouts placed, 32,000 yds. cinders unloaded, and 7000 yds. cinder ballast. W. K. Martin, Engr. of Constr., Harrisburg, Pa., in charge.

Tenn., Chattanooga—Chattanooga Traction Co. proposes to soon extend its Red Bank line several miles up Dry Valley. B. C. Edgar & V. P. and Gen. Mgr.

Road and Street Construction.

Ala., Birmingham—City, let contract to Southern Roads Co., at \$16,653.10 for 6135 sq. yds. paving and 1235 sq. rds. concrete walk on 39th St. and Marble Ave.; plans expending \$80,000 to pave Fifth Ave., South, with sheet asphalt on 5-in. granite base; also plans paving N. 13th St. between 8th and 11th Aves.; A. J. Hawkins, City Engr.

Ala., Birmingham—City. For full details see Mch. Wanted—Paving.

Ala., Decatur—Morgan County Board of Revenue will construct highways; plans issuing \$400,000 bonds.

Ala., Mobile—Mobile County Board of Revenue and Road Commrs., Thos. B. Allman, Chrmn., let contract to R. M. Perry for following:

Whistler, clay gravel Turner Road from John Craft Highway to South Railroad St.

Pritchard, gravel surface Holmes St. from River to Pritchard Sts.

Ala., Mobile—Mobile County Board of Revenue and Road Commrs., Thos. B. Allman, Chrmn., will lay gravel following:

Moffatt Road, from end of gravel west of Semmes to 1 mi. west of Wilmer.

Howell road, from Moffatt road to Orchard Station.

Dickens Ferry road, from end of concrete on Old Shell road west to Sta. 124.

Ark., Forrest City—St. Francis County, Road Improvement Dist. No. 2, let contract to S. K. Jones & Co., Memphis, Tenn., at \$138,000, to repair 8 mi. road; gravel 9 mi.; construct 10½ mi. from Biales post office to Crittenden County line; about 9 mi. lateral roads; W. M. Goodbar, Secy.; R. A. Kern, Engr.

Ark., Fort Smith—City contemplates laying sidewalks on N. 11th St. from Q to T Sts. Address The Mayor.

Ark., Fort Smith—Sebastian County, T. A. Norris, County Judge will pave with asphalt, Greenwood Ave., between Dodson Ave. and North O St.; Jim Johnson, County Road Commr.

Arkansas—State Highway Dept., Little Rock, plans following:

Columbia County, 20-mi. gravel road from Magnolia to Louisiana line.

Chicot County, 9-mi. gravel road from Lake Village to Sunnyside; R. C. Limerick, State Highway Engr.

Fla., Coconut Grove—For full details see Electric Light Plants.

Fla., Eustis—Town. For full details see Mch. Wanted—Paving.

Fla., Fort Pierce—St. Lucie County Comms., Fort Pierce and White City Comms. Dist. complete Fort Pierce-Okeechobee road; voted \$50,000 bonds.

Fla., Gainesville—Alachua County Board of Bond Trustees, Special Road and Bridge Dist. No. 1, let contract for following:

12.1 mi. hard surfaced Gainesville-Fairbanks-Waldo road from Gainesville to Waldo; limestone, to Michler & McLeod, Tampa, Fla. 5000-ft. fill-in roadway between island Grove to Citra; to J. D. Donahoo, Jacksonville, Fla.

Fla., Hopewell, P. O. Keyville—City will improve roads; vote June 20 on \$3,000,000 bonds. Address The Mayor.

Fla., Miami—Dade County Comms., let contract to W. T. Price, at \$10,500, to extend Miami Canal Road from Pennsylvania Sugar Co. plantation, to Broward County line.

Fla., Ocala—Marion County Comms., R. R. Meffert, Chrmn., let contract to Barber-Porter Co., to hard surface about 20 mi. State Road No. 2, from Belleville to Lake County line.

Fla., Pensacola—Escambia County Comms., L. S. Gilmore, let contract for following: 4½ mi. Pensacola—Flamaton Road, to J. S. Holloway Co., Hattiesburg, Miss., at \$109,270.50.

2 mi. Pensacola—Nunez Ferry road, to John Gerkins, at \$48,751.53; both reinforced concrete; Jas. MacGibbon, Clerk.

Fla., Quincy—City. For full details see Mch. Wanted—Paving.

Fla., St. Augustine—St. Johns County Comms., construct 7 roads. For full details see Mch. Wanted—Road Construction.

Fla., Tampa—City Comsn., grade, pave and curb following: Bristol Ave., 1602 sq. yds. pavement; 1254 lin. ft. curb and gutter; asphalt blocks; 22nd St., 1922 sq. yds. pavement; 1270 lin. ft. curb; asphalt blocks; 13th St., 2684 sq. yds. pavement; asphalt blocks; Oregon Ave., 11,185 sq. yds. pavement; 2720 lin. ft. new curbing; asphalt blocks; Southview Ave., etc.; bids opened; Chas. H. Brown, Mayor.

Fla., Wauchula—City let contract to Stidham & Hughes to pave 4½ mi. streets; probably asphaltic concrete. Address The Mayor.

Fla., West Palm Beach—Palm Beach County Comms. For full details see Machinery Wanted—Road Construction.

Fla., West Palm Beach—Palm Beach County Comms., Hector Harris, Chairman, conhard surfaced highway connecting bridge across Lake Worth with other roads; vote June 22 on \$100,000 bonds.

Fla., Winter Haven—Town. For full details see Mch. Wanted—Paving.

Ga., Athens—Clarke County will improve roads and bridges; vote July 12 on \$150,000 bonds. Address County Comms.

Ga., Augusta—City, Streets and Drains Comm. For full details see Mch. Wanted—Paving.

Ky., State Highway Comsn., Frankfort, Ky., construct 10 roads. For full details see Mch. Wanted—Road Construction.

Kentucky—State Highway Comsn., Frankfort, Ky., construct 11 roads. For full details see Mch. Wanted—Road Construction.

Ky., Catlettsburg—City. For full details see Mch. Wanted—Paving.

La., Baton Rouge—City let contract to White & Denham, for 12½ mi. gravel road in 3rd Ward. Address The Mayor.

La., Greensburg—Saint Helena Parish Police Jury, construct 30 mi. road, Sixth Road Dist.; bids until July 1.

La., Monroe—Ouachita Parish Police Jury plans expending \$300,000 to pave 2 mi. on DeSiard St. and 3 mi. on Grand St.; J. B. Breard, Prest.; parish to pay \$185,000.

La., Monroeville—Ouachita Parish Police Jury, plans expending \$825,000 for 46 mi. roadway as follows:

3.5 mi. Monroe-Rayville road; \$130,000.
18.5 mi. Monroe-Ruston road; \$300,000
3 mi. Bosco-Blankston road; \$25,000.
12 mi. Monroe-Jonesboro road; \$130,000.
4 mi. Prairie-Bayou road; \$45,000.
5 mi. streets in Monroe; \$185,000.

Md., Baltimore—City, Paving Comsn., R. Keith Compton, Chrmn., will pave annex streets: Granada Ave., from Springdale to Forest Park Aves.; Southern Ave., and Halcyon Park road from Hartford to Elois Aves.; with sheet asphalt, Ellicott Drive, Lakeside Ave., Payson St., Springhill Ave., Dennison St., etc.; with concrete cement; St. Mary's and Stockton Sts.

La., Ruston—Lincoln Parish Police Jury let contract to McGuire Cattle Co., Monroe, La., for 5 mi. highway on North-and-South road south of Ruston; plans constructing Lincoln Parish link of Dixie Overland Highway to Ouachita Parish.

Maryland—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md., construct 5 roads. For full details see Mch. Wanted—Road Construction.

Maryland—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md., let contracts for following:

Wicomico County, 2 mi. State Highway from Royal Oak toward Nanticoke; to R. D. Phillips & Brothers, Salisbury, Md., at \$55,600.

Harford County, 3.7 mi. State Highway from Shawsville to Norrisville; to Kenneth M. Livingston, Washington, D. C., at \$113,100.
Caroline County, 1 mi. along Railroad Ave., Preston, and along Railroad Ave., Greensboro; to Kauffman Construction Co., Denton, Md., at \$19,700.

Md., Baltimore—City, Board of Awards, Wm. F. Broening, Prest., plans widening and improving Bloomingdale road between Poplar Grove St. and Walbrook Junction; H. G. Perring, Chief Engr.

Md., Baltimore—City. For full details see Mch. Wanted—Paving.

Md., Baltimore—City. For full detail see Mch. Wanted—Bridge Construction.

Md., Baltimore—City, Board of Awards, Wm. F. Broening, Prest., plans expending \$250,000 to \$300,000 to pave following:

Eastern Ave., from old city line to Bay View; Baltimore St., east of old city line; Clinton St. from Fait Ave. to Lombard St.; section of Gough St.; Cedar Ave. from Druid Hill Park to Remington Ave.; Tiffany Alley; sheet asphalt.

Md., Baltimore—City. For full details see Mch. Wanted—Paving.

Md., Baltimore—City, Board of Awards, Wm. F. Broening, Prest., let contracts for following:

Alleys, 14,500 sq. yds. cement concrete; Cont. No. 84 to Edw. C. Mackenroth, 81 W. West St.; Cont. No. 85, to Dominic Catalano, 265 East St.; total cost \$25,091; Footways, 17,760 sq. yds.; cement concrete; Conts. Nos. 11, 12, 15, 16, to Edw. C. Mackenroth, 81 W. West St.; Cont. No. 13, to F. D. Carozza, 1205 Continental Bldg.; Cont. No. 14, to Aiello Construction Co., Knickerbocker Bldg.; total cost \$34,220.

Md., Baltimore—City. For full detail see Mch. Wanted—Bridge Paving.

Md., Chevy Chase, P. O. Washington, D. C.—For full details see Mch. Wanted—Paving.

Miss., Natchez—Adams County Board of

Supvrs., Frank V. Elsele, Chancery Clk., let contract to F. A. Cock, at \$40,000, for 9.5 mi. hard-surface road between Washington and Leesdale; W. J. Hughes, Engr.

Missouri—State Highway Dept., Jefferson City, Mo., let contracts for following:

Oregon County, 5.723 mi. State road from hannon County line to Ripley County line; tate Aid Project No. 20,123; grade, construct drainage structures; to Service Construction Co., Poplar Bluff, Mo., at \$28,347.80.
Lewis County, 2.444 mi. State road through aBella, Bluff and Upper Canton Special Road Dist.; State Aid Project No. 20,128; grade, construct drainage structures; guard rail, etc.; to A. P. Munsen, Marion, Iowa, at \$9797.96.

Lewis County, 1.219 mi. State road eastward and westward through county; State Aid Project No. 20,163; grade, construct drainage structures, guard rail, etc.; to A. P. Munsen, Marion, Iowa, at \$5634.20.

Mo., State Highway Dept., Jefferson City Mo., plans following:

DeKalb County, 3.955 mi. State road east and west from Osborn; State Aid Project No. 20,158; A. C. Lingrey, Div. Engr., Ballinger Bldg., St. Joseph, Mo.

Cape Girardeau County, 5.576 mi. State road from Delton southwestward; State Aid Project No. 20,165; M. S. Murray, Div. Engr., Sikeston, Mo.

Moniteau County, 1.193 mi. State road from California, northward; State Aid Project No. 20,175; M. S. Rudder, Div. Engr., Ilgenfritz Bldg., Sedalia, Mo.

Stoddard County, 4.946 mi. State road from Dudley east and west; Federal Aid Project No. 178-A; M. S. Murray, Div. Engr., Sikeston, Mo., gravel pavement; all grade and construct drainage structures.

Mo., Carrollton—Carroll County. For full details see Mch. Wanted—Road Construction.

Mo., Cassville—State Highway Dept., Jefferson City, Mo. For full details see Mch. Wanted—Road Construction.

Mo., Carthage—City plans expending \$29,897 to pave Maple Ave. Address The Mayor.

Mo., Chillicothe—City, Frank W. Ashley, Mayor, let contract to Clarkson Construction Co., Kansas City, Mo., to resurface 5 streets.

Mo., Clinton—State Highway Dept., Jefferson City, Mo. For full details see Mch. Wanted—Road Construction.

Mo., Jefferson City—City, Richard P. Nacy, Clerk., pave following streets with bituminous macadam, High, Miller, Water, McCarty, Ashley, etc.; with fiber brick, Madison St.; with cement concrete, Monroe, between Woodlawn and Atchison, Jefferson, between Ashley and Dunklin; F. E. Ross, Engr.

Mo., Kahoka—Clark County, Wayland Special Road Dist. will complete Keokuk-Alexandria road; Keokuk pledged \$18,000 for project.

Mo., Kirksville—City, Elmer L. Barnes, Clk., pave 2 blocks on Main St. with brick and asphalt filler; bids opened; Ben Crabtree, City Engr. (See Mch. Wanted—Paving Material.)

Mo., Liberty—Clay County Comms., grade and surface highway of State Project No. 25; also grade and hard surface 10 mt. highway of State Project No. 6A; bids opened.

Mo., Monticello—State Highway Dept., Jefferson City, Mo., let contract to A. P. Munston, at \$8093, to grade 1.219 mi. State road from Monticello eastward and westward; build necessary culverts; also to A. P. Munston to grade and build necessary culverts

on State road from Canton northwards, and Labelle, westward.

Mo., Poplar Bluff—City let contract to Edw. F. Regenhart, Cape Girardeau, Mo., at \$36,408, to pave certain streets. Address The Mayor.

Mo., St. Joseph—City, Board of Public Works let contract to Public Works Co., to pave Green St., from 7th St. to St. Joseph Ave.; Portland cement concrete.

Mo., Trenton—City, C. R. Winks, let contract to Harrison Transportation Co., to pave 13th St., from Cedar to Tinsman Ave.

Mo., Unionville—State Highway Dept., Jefferson City, Mo. For full details see Mch. Wanted—Road Construction.

Mo., Warrensburg—City plans expending \$12,414.50 to pave N. Maguire St. with double seal bituminous macadam pavement; bids invited. Address The Mayor.

North Carolina—State Highway Dept., Raleigh, N. C.; plans following projects:

700—Alleghany County, 7.9 mi. State Highway from Roaring Gap to end Project No. 125-A; penetration macadam; \$145,055.

702—Alleghany County, 15 mi. State Highway from Sparta to Scottsville; gravel or macadam.

712—Ashe County, 11.4 mi. Sparta road, from Jefferson to Scottville; gravel or macadam.

742—Forsyth County, 10.4 mi. State Highway from Reynolds to Yadkin River, toward Yadkinville; hard surface; Federal Aid.

743—Forsyth County, 11.1 mi. State Highway from Winston-Salem to Stokes County line; hard surface; to be built by Forsyth County.

750-B—Forsyth County, 8 mi. road from Clemmons Ford Bridge to Danbury, by Moores and Piedmont Springs; topsoil.

752—Forsyth County, 5 mi. Road from Quaker Gap to Reynold's school; topsoil.

761—Surry County, 2 mi. connecting Mt. Airy-Dobson road to road leading from Patrick Courthouse, Va.; hard surface.

784—Wilkes County, 6 mi. Wilkesboro-Taylorsville road, from Moravin Falls to Alexander County line; topsoil or gravel.

701—Wilkes County, 8 mi. Elkton-Sparta road, from Doughton to Roaring Gap; penetration macadam; \$154,800.

785—Wilkes County, 2.25 mi. Wilkesboro-Laurel Branch road, from North Wilkesboro to Fair Plains; concrete.

770—Watauga County, 11.5 mi. road from Boone to Caldwell County line, via Blowing Rock; soil or gravel, and waterbound macadam.

N. C., Greensboro—Guilford County let contract to surface 20 mi. Stokesdale to Reidsville road. Address County Comms.

N. C., Kingston—Roans County, T. F. Ingram, County Judge, plans expending about \$672,000 for \$24 mi. road through county; telvise base; Kentucky rock asphalt; J. T. Staples, County Engr., Rockwood, Tenn.

N. C., Marshall—State Highway Comsn. Raleigh, N. C., plans constructing 10 mi. Dixie Highway from Mars Hill, Madison County to Tennessee line.

N. C., Rutherfordton—Rutherford County plans expending \$100,000 to hard surface road from city Forest City; let contract soon.

Okla., Claremore—Rogers County plans constructing hard surfaced roads; from Tulsa County on southwest to Craig County on northeast; Wagoner County line on south to Nowata County on north; Tulsa County on west to Mayes County on east; all gravel; plans issuing bonds. Address County Comms.

Okla., Duncan—City let contract to pave with asphalt, 7 blocks in residential section; plans paving 26 additional blocks. Address The Mayor.

Okla., Nowata—Nowata County plans expending \$70,000 to hard surface 6 mi. Delaware-Lenapah road; Federal Aid Project. Address County Comms.

S. C., Charleston—City will construct 16 mi. asphalt roadway; bids about June 14; Jas. H. Dingle, City Engr.

S. C., Aiken—City plans hard surfacing 1 mi. Park Ave. with concrete, brick or asphalt. Address The Mayor.

S. C., Columbia—Richland County let contract to Chatham Paving Co., Savannah, Ga., to pave White Rock highway to line between Richland and Lexington Counties. Address County Comms.

S. C., Laurens—City, W. H. Dial, Mayor, construct .36 mi. pavement on Church St.; 4362 sq. yds. plain or reinforced concrete, or combination header asphalt, curb and 5-in. base course with 4038 sq. yds. sheet or natural rock asphalt, or coarse or fine aggregate asphaltic concrete surf; bids opened June 14; N. C. Hughes, Jr., Engr.

S. C., Newberry—State Highway Dept., Columbia, S. C., let contract to Smith & Hall, Elberton, Ga., at \$14,565.55 to grade and topsoil 2.5 mi. road on Newberry-Greenwood road; Chas. H. Moorefield, County Engr.

S. C., Orangeburg—City Comsn., T. O. S. Dibble, City Clk., let contract to Ely Construction Co., Augusta, Ga. for paving; 93,000 sq. yds. roadway pavement; 17,000 sq. yds. concrete gutter; 10,000 lin. ft. granite curb relined; \$250,000 available.

S. C., Sumter—Sumter County Permanent Road Com., let contracts for following: Statesburg road, 3.65 mi. from city limits toward Statesburg; Federal Aid Project No. 163; to Slattery & Henry, at \$110,670.02.

Camden road, Section A, 1.74 mi. from Myers store toward Dalzell; both sheet asphalt with concrete base; to Powell Paving Co., at \$46,231.55.

Wedgfield—Pinewood road, 4.50 mi. from city limits on Liberty St. west by Second Mill and southwest by way of Shadyside; bituminous concrete with concrete base; to Powell Paving Co., at \$117,253.31.

Camden road, Section B, 4.77 mi.; grade only; to Mallard Lumber Co., at \$14,158.38

S. C., Union—Highway Comsn., Emslie Nicholson, Chrmn., improve streets; Bishop Bros., Wilmington, N. C., Engrs.

S. C., Winnsboro—Fairfield County Highway Comsn., Township No. 11, B. H. Yarborough, Chrmn., let contract to W. A. Ratchford, Carlisle, S. C., to topsoil 5 mi. Monticello road from Little River to Jenkinsville. (See Mch. Wanted—Paving Equipment.)

Tenn., Chattanooga—City Comsn., let contract to Chickamauga Quarry & Construction Co., at \$66,741.46, to construct 234,260 sq. ft. sidewalks, and 45,193 lin. ft. curb on following streets: Main from Central Ave. to Ringgold road; 12th, 13th, 14th, 17th, 18th, Watkins Sts., Bennett National, Read Aves., etc.

Tenn., Cleveland—City Comsn., let contract to Murray Construction Co., Knoxville, Tenn., to pave with asphaltic concrete 25,000 sq. yds. in Districts Nos. 11, 16, 17, 18, 25; and to Coker, Gamble & Brown, Chattanooga, Tenn., to pave with tarvia, Districts Nos. 21, 22, 23.

Tenn., Clarksville—City let contract to Y. L. Boswell Co., Nashville, Tenn., to pave with concrete, sidewalks, curbs and gutters. Address The Mayor.

Tenn., Columbia—Maury County, Sam Conner, County Judge, plans constructing 3 mi. concrete road from Stringers ridge tunnel to Glendale.

Tex., Alvarado—City plans paving streets;

voted June 6 on \$19,000 bonds. Address The Mayor.

Tex., Ballinger—Runnels County let contract to Kuykendahl & Shelton, Temple, Tex., at \$13,118.31, to grade and surface with gravel 9.8 mi. State Highway No. 30; and small section with concrete pavement; Paul Tremmer, County Judge; U. Stephens, County Engr.

Tex., Beaumont—Jefferson County plans highway improvements; \$2,000,000 approved; A. C. Love, County Engr.

Tex., Breckenridge—Ch. Engr., Bureau of Public Road, Washington, D. C., approved plans to surface with crushed stone and 1-in. asphalt top, 19.8 mi. Bankhead Highway in Stephens County, between Walker St. viaduct to Palo Pinto County line; \$508,472; also surface with bituminous macadam 10.31 mi. State Highway No. from Breckenridge to Shackelford County line; 18 and 22-ft. wide; \$327,472.25; Nagle-Witt-Rollins Engineering Co., County Engrs., Dallas, Tex.; J. W. Darden, County Judge, Breckenridge.

Tex., Brenham—Washington County plans north and south highway through county; \$300,000 bond issue approved; J. H. Chapell, County Judge; G. A. Bracher, County Engr.

Tex., Clarksville—Red River County surface 2.51 mi. State Highway No. 5, with gravel; 12-ft. wide; \$18,000; Federal Aid Project No. 299; bids invited soon; R. J. Williams, County Judge; J. B. Rieman, County Engr.

Tex., Coleman—Ch. Engr., U. S. Bureau of Public Roads, Washington, D. C., approved plans to construct 22.4 mi. 16-ft. gravel road, State Highway No. 23; Coleman County, Federal Aid Project No. 196; \$348,019; L. G. Matthews, County Judge; W. E. Dicker son, County Engr.

Tex., Dallas—Dallas County, construct 4 roads. For full detail see Mch. Wanted—Road Construction.

Tex., Decatur—Wise County, Comms. Court, Doad Dist. No. 2, will grade and construct concrete structures on 21 mi. State Highway from Decatur to Montague County line; approx. cost \$100,000; W. D. Paschal, County Judge; Lloyd W. Taylor, County Engr.

Tex., Decatur—Wise County. For full details see Mch. Wanted—Road Construction.

Tex., Houston—City, O. F. Holcombe, Mayor, will improve streets; voted \$500,000 bonds; J. C. McVey, City Engr.

Tex., Houston—Harris County—surface 5.4 mi. State Highway No. 2, with gravel and bituminous topping; \$65,000; Federal Aid Project No. 201; bids opened soon; Chester H. Bryan, County Judge; Howe & Wise, County Engrs., 211 First National Bank Building.

Tex., Marlin—Ch. Engr., U. S. Bureau of Public Roads, Washington, D. C., approved plans constructing 7 mi. 18-ft. gravel with 1-in. bituminous topping surfacing, State Highway No. 2, Falls County; \$129,905.16; E. M. Dodson, County Judge; G. W. Courter, County Engr.

Tex., McKinney—Collin County, R. E. Beasley, County Auditor, let contract to D. H. Purvis & Son, Fort Worth, Tex., at \$32,500 to surface 11.06 mi. road in Wylie Road Dist. No. 15; rock base; gravel top; F. W. Cawthon, County Engr., McKinney.

Tex., Paris—Lamar County, construct 2 roads. For full details see Mch. Wanted—Road Construction.

Tex., Richmond—Fort Bend County. For full details see Mch. Wanted—Road Construction.

Tex., Sequin—State Highway Dept., Austin, Tex., approved plans for 3.4 mi. 16-ft. gravel

road on State Highway No. 3; Sequin-San Antonio road, Guadalupe County; \$36,745; J. B. Williams, County Judge; Hess & Skinner, County Engrs., S. W. Life Bldg., Dallas.

Tex., Tyler—Ch. Engr., U. S. Bureau of Public Roads, Washington, D. C., approved plans for 7.4 mi. 16-ft. gravel road on State Highway No. 37; Smith County, Federal Aid Project No. 197-B; \$59,541; D. R. Pendleton, County Judge; D. K. Caldwell, County Engr.

Tex., Waco—McLennan County plans 3 mi. 16-ft. gravel bituminous road on State Highway No. 6; Federal Aid Project No. 139; \$65,000; bids open soon; J. P. Lester, County Judge; Mantan Hannah, County Engr.

Va., Lexington—City will improve roads and streets; voted \$85,000 bonds. Address The Mayor.

Va., Norfolk—City, W. H. Taylor, 3rd., Director of Public Works, grade and lay concrete base on road at Municipal Terminals, Sewalls Point; about \$4500 sq. yds. concrete base with integral curb; bids opened June 13; Chas. E. Ashburner, Mgr.

West Virginia—State Road Comsn., Charleston, W. Va., let contracts for following:

Doddridge County, 3 mi. Harrison County line, west; pave; to Kennedy Construction Co., Parkersburg, W. Va., at \$115,419.62.

Brooke County, 1 mi. East Steubenville towards Hollidays Cove; to Ben C. Stringer & Co., Rayland, Ohio, at \$43,894.18.

Braxton County, 6 mi. Sutton-Gassaway road; to Langhorne, Huntington, at \$75,205.45.

Jackson County, 5 mi. Evans-Cottegeville road; to C. E. Price, Huntington, at \$33,005.45.

Jackson County, 5 mi. Ripley-Charleston road; to Keely Construction Co., Clarksburg, at \$36,607.

Hampshire County, 3 mi. Mechanicsburg Gap-Romney road; gravel surface; pave; to Monongahela Construction Co., Fairmont, at \$49,637.

Kanawha County, .5 mi. Elk River road; to Brown & Floyd, Charleston, at \$10,332.50. Jefferson County, 1.9 mi. Harpers Ferry-Bolivar road; concrete; pave; to H. C. Brooks Co., Martinsburg, at \$53,396.24.

Hancock County, 1 mi. Weirton-New Cumberland road; to Ben C. Stringer & Co., Rayland, Ohio, at \$24,933.50.

Lewis County, 5 mi. Weston-Jane Lew road; concrete; pave; to Leiple Wolf Construction Co., Youngstown, Ohio, at \$241,808.15.

Preston County, 10 mi. Kingwood-Terra Alta road; bituminous macadam; to F. F. Hallam & Sons, McKeesport, Pa., at \$229,850.50.

Ritchie County, 2 mi. Cairo-Shields Hill road; concrete; pave; to W. A. Wilson & Sons, St. Mary's, at \$69,390.50.

Marshall County, 3 mi. Waynesburg pike; concrete; pave; to Keeley Construction Co., Clarksburg, at \$65,878.75.

Pendleton County, 4.7 mi. Franklin-Petersburg road; 1 mi. gravel, surface; to Souder Construction Co., Lancaster, Pa., at \$6787.

Mingo County, 12 mi. Mary Taylor-Island Creek road; gravel surface; to Beckwith, White & Co., and White & Wood, Roanoke, Va., at \$211,654.

Roane County 2 mi. Spencer-Reedy road; to P. F. Cottle, Spencer, at \$46,968.50.

Taylor County, 3 mi. Grafton-Clarksburg road; concrete; pave; to Kennedy Construction Co., Parkersburg, at \$123,387.52.

Tucker County, 6 mi. Parsons-Elkins road; to Keeley Construction Co., Clarksburg, at \$74,865.50.

Wetzel County, 3.5 mi. Hundred-Littleton road; bituminous macadam on Telford base; pave; to B. M. Chaplin & Co., Morgantown, at \$112,014.

Wyoming County, 4.8 mi. Mullens-Elmore

road; brick, concrete on concrete base, with bituminous concrete, Warrenton or rock asphalt surface as alternates; to Clifford Engineering Co., Montgomery, at \$176,082.

Upshur County, 2 mi. Buchannon-Weston road; concrete; pave; to W. J. and J. T. Gephart, Williamsport, Pa., at \$65,765.30.

Logan County, 7.5 mi. Clothier-Blair road; to Boxley Brothers Co., Huntington, at \$128,200.

Fayette County, 5.3 mi. Ansted-Falls Dist.; to Waugh Brothers & Vecellis, St. Albans, at \$90,470.

Div. No. 222 mi. cleaning and tar-surfaced; to Atlantic Oil Produce Co., Philadelphia, at \$7080.60.

Monroe County, 4.3 mi. clean and tar-surfaced; to Atlantic Oil Produce Co., Philadelphia, Pa., at \$1,916.03.

Berkeley County, 4.9 mi. Winchester pike; bituminous concrete, Warrenton or rock asphalt; to P. Flannigan & Sons, 2600 Harford Ave., Baltimore, Md., at \$116,600.

Fayette County, 14.1 mi. clean and tar-surfaced; to Atlantic Oil Co., at \$3769.

Greenbrier County, 9 mi. clean and tar surface; to Atlantic Oil Produce Co., Philadelphia, Pa., at \$2334.86.

Jefferson and other counties, clean and tar-surfaced; to Atlantic Oil Produce Co., at \$7459.71.

Harrison County, 2 mi. concrete paving, to the Colonial Construction Co., Pittsburgh, Pa., at \$73,418.

W. Va., Charleston-Kanawha County Comms. Court. For full details see Mch. Wanted—Road Construction.

W. Va., Fairmont—Marion County. For full details see Mch. Wanted—Road Construction.

W. Va., Huntington—City. For full detail see Mch. Wanted—Paving.

Sewer Construction.

Ark., Gurdon—For full details see Water Works.

Ark., Pine Bluff—City let contract to John H. Guest, of Guest Engineering Co., to install sewer system; cost about \$60,000.

Ark., Warren—For full details see Mch. Wanted—Sewer Construction.

Fla., Clearwater—City let contract to Overman & Carroll, St. Petersburg, Fla., to construct sewer extension.

Fla., Coconut Grove—For full detail see Electric Light Plants.

Fla., Eustis—For full details see Mch. Wanted—Sewer Construction.

Fla., Quincy—For full detail see Mch. Wanted—Sewer Construction.

Fla., Tampa—For full details see Mch. Wanted—Sewer Construction.

Ga., Willacoochee—City will improve sewer system; J. B. McCrary Co., Engrs., Atlanta, Ga.

Ky., Ashland—City Council let contract to Amos Trainer, Huntington, W. Va., to construct storm and sanitary sewers.

Ky., Central City—For full details see Mch. Wanted—Sewer Construction.

Ky., Louisville—For full details see Mch. Wanted—Sewer Construction.

La., Winnsboro—City will construct sewer and water system; voted \$80,000 bonds; X. A. Kramer, Engrs., Magnolia, Miss.

Md., Baltimore—Board of Awards, Wm. F. Broening, Prest., opened bids for storm water Contract No. 52; Adams E. Marneo, 216 St. Paul St., lowest bidder at \$19,321.27; approximate quantities, 193 ft. 18-in., 600 ft. 12-in., 261 ft. 10-in., 100 ft. 8-in. terra cotta sewer (vitrified); 761 cu. yds. concrete; 13 manholes.

Md., Crownsville—For full details see Machinery Wanted—Sewage Disposal Plant.

Md., Hagerstown—Sewerage Comsn. let contract at \$117,930 to Harry Angle, Hagerstown, to construct sewerage system.

Miss., Jackson—For full details see Water Works.

Mo., Aurora—City let contract to Mark Mathes, Aurora, and F. R. McSweeney, Springfield, to construct sewers; will let contract for disposal plant.

Mo., Carthage—City let contract to Hallett & McNeerney, Carthage, to construct sewers in Dist. No. 41 and 50; cost about \$10,000.

Mo., Eldon—City will let contract soon for erection of sewer and water system; voted \$81,000 bonds. Address The Mayor.

Okla., Muskogee—For full detail see Mch. Wanted—Sewer Construction.

Mo., St. Louis—Board of Public Service let contract at \$9000, to Hogan Contracting Co., 2120 Harris Ave., to construct sewer in Glaise Creek Dist., No. 21.

N. C., Kernersville—For full details see Mch. Wanted—Water and Sewer System.

S. C., Greenville—For full details see Water Works.

S. C., Greenwood—Ninety-Six Cotton Mills James C. Self, Prest., will install sewer system in village.

Tenn., Memphis—Board of Commrs., let contract to T. A. Garvin, 1210 Lamar Ave. and Torson Constr. Co., Kansas City, Kansas, for sewers.

Tex., Pampa—City, A. H. Doucette, Engr., will construct sewer system; 3½ mi. 6, 8, 10-in. vitrified pipe; Imhoff tank; cost \$25,000. (Lately noted.)

Tex., Port Arthur—For full details see Mch. Wanted—Sewer Construction.

Va., Potomac—Town Council let contract at \$90,000 to Menelle & Son, 1507 N. Long Ave., Pittsburgh, for sewers.

Va., Portsmouth—City will soon invite bids for construction of sewers in West Park View; cost \$30,000. Mr. Jervey, City Engr.

W. Va., Morgantown—City will construct sewer system; will probably vote July 13 on \$750,000 bonds. Address The Mayor.

Telephone Systems.

Ky., Lexington—F. L. McVey, Prest. of University of Kentucky, install radio broadcasting station in dept. of physics, having radius of 600 mi.

Miss., Jackson—Mississippi State Radio Association, capital \$10,000, inceptd. by Garnet Forney, 4515 Vermont Ave., Detroit, Mich., and others.

Tex., Fort Worth—Alvord Telephone Co., capital \$25,000, inceptd. by A. C. Hughes, Ft. Worth, Tex.; S. C. Pedigo and J. H. Field, St. John, Tex.

Textile Mills.

Ala., Huntsville—Cotton—Wellman Cotton Co., capital \$200,000, inceptd. by W. M. Wellman, Shelby S. Fletcher, H. E. Spragins; purchased and will operate Fulton Cotton Mill in Athens.

Md., Ilchester—Thistle Cotton Mills, Chas. M. Sears, Secy., will erect cord tire fabric plant; 200x60 ft.; brick; daily capacity 4500 lbs., install 12,000 spindles; 9 looms; 200 H. P.; electric power plant; electric drive; John N. Gill & Co., Phila., Pa., Engrs.

N. C., Charlotte—Yarn—Insulating Yarn Co., capital \$50,000, inceptd. by Emery B. Denny, J. S. Duncan, Jack Ellerbe; all of Gastonia, N. C.

N. C., Gastonia—Yarns—Ruby Mills, Inc., re-organized with D. M. Jones, Prest.; is

constructing addition to plant; install 6000 spindles.

N. C., Spindale—Spinners Processing Co., S. E. Elmore, Treas., let contract to Potter & Shackelford, Inc., Greenville, S. C., to construct building; 243x137 ft.; 2 story; brick and timber; cost \$80,000.

Tenn., Chattanooga — Spinning — Dixie Spinning Co., organized with \$1,000,000 capital, with J. T. Lupton, Prest.; Carter Lupton, V. P.; J. I. Harrison, Secy.; will construct plant; brick and steel; cost \$500,000; opens building and mch. bids July 1; install 10,000 spindles; electric power; Henry O'Brien, Elizabeth Apartments, Chattanooga, Archt. Engr. (Lately noted.)

Tenn., Knoxville—Knit Neckwear—Silk Tie Knitting Co., capital \$10,000, inctpd. by Victor H. Spull, Ira T. and Roy C. Bean, mfr. knit neckwear and other textiles.

Water Works.

Ark., Gurdon—City let contract at \$80,322.58, to McEachin & McEachin, Little Rock, to construct water and sewerage system.

Fa., Starke—City will enlarge and improve water works; voted \$36,000 bonds. Address The Mayor.

Fla., West Palm Beach—City will construct high pressure water system for fire control, and water front improvements, voted \$100,000 bonds. Address The Mayor.

Fla., Winter Garden—For full details see Mch. Wanted—Water Works Construction.

La., Thibodaux—City considering proposition of Mord Roberts, Roberts Filter Mfg. Co., Darby, Pa., to establish water purification plant.

La., Winnsboro—For full details see Sewer Construction.

Md., Baltimore—Architectural Comsn. selected Wm. W. Emmart, 1101 Union Trust Bldg., Archt., for filtration plant at Montebello; cost \$1,000,000; estimated to treat 90,000,000 gals. of water.

Mo., Eldon—For full details see Sewer Construction.

Mo., Fulton—City, contemplates improving water and light system; Leonard A. Day, St. Louis, Consit. Engr.

Miss., Jackson—City will improve water works and sewer system; voted bonds. Address The Mayor.

Mo., Versailles—City will improve water works; E. T. Archer & Co., Kansas City, Engrs.

Mo., Webb City—City contemplates establishing water works plant. Address The Mayor.

N. C., Kernersville—For full details see Mch. Wanted—Water and Sewer System.

N. C., Kings Mountain—For full details see Mch. Wanted—Water Works.

Okla., Hugo—City plans issuing \$150,000 bonds for water works. Address The Mayor.

S. C., Greenville—City will improve water works and sewerage system; voted \$400,000 bonds. Address The Mayor.

Tenn., Bristol—City will improve water works; votes Aug. 3 on \$50,000 bonds; L. H. Gammon, Mayor. (Lately noted.)

Tex., Childress—For full details see Mch. Wanted—Water Works.

Tex., Dublin—City, J. S. Daley, Mayor, will extend and improve water works; votes June 14 on \$25,000 bonds.

Tex., Electra—City let contract at \$50,000 to James Construction Co., Dallas, Tex., to construct 3.7 ml. of 10-in. water main; H. E. Elrof Co., Dallas, Consit. Engrs.

Tex., Karnes City—City, A. P. Cobb, Mayor, opens bids June 16 (change of date) for

cast iron pipe and appliances, pumps and for installing same and for building concrete ground storage reservoir and fireproof pump house; proposal blanks, etc. on file at office of City Clerk and at office of Terrell Bartlett, 612 Calcasieu Bldg., Engrs.

Tex., Pampa—City, A. H. Doucette, Engr., will construct water works plant; 75,000 gal. tank, 100 ft. high; daily capacity 40,000 gals.; install two 10 H. P. motors and pump jacks. (Lately noted.)

Tex., San Antonio—San Antonio Water Supply Co. let contract to McKenzie Construction Co., to construct coffer dam, etc. across river at Mitchell St. bridge; construction begun.

Va., Radford—City, Wm. E. Gilbert, Mayor plans water works improvements; will vote on \$95,000 bonds; improve electric light plant, votes on \$115,000 bonds.

W. Va., Bluefield—Bluefield Water Works will construct pipe line up Bluestone River.

W. Va., River View—Town will install water works; 50,000 gal. reservoir, centrifugal pumps, etc.; B. Kress, Engr., Elkins, W. Va.

W. Va., Williamsport—City will construct water system; voted \$100,000 bonds. Address The Mayor.

Woodworking Plant.

Ala., Mobile—Boxes—Mengel Co., Louisville, Ky., plans establishing saw and planing mill, electric haulage system, hoisting equipment, etc.; T. F. Faust, in charge.

Fla., West Palm Beach—Furniture—Lytal McDonald Furniture Co., capital \$25,000, inctpd. with Eli McDonald, Prest.; C. J. Fauth, Secy.-Treas.

Ga., Savannah—Cross Ties, etc.—Atlantic Tie & Tube Co., capital \$75,000, inctpd. by Robert M. Hitch, 649 Estill Ave., and Eugene Pollard, both Savannah; Charles F. Thompson, Chicago, Ill.

Mo., Springfield—Caskets—Southwestern Casket Co., George H. Connelly, Prest., erect \$25,000 plant on N. Boulevard and Frisco tracks.

N. C., Winston Salem—Furniture—Forsyth Furniture Lines, Inc., capital \$2,500,000, inctpd. with Charles S. Siewers, Prest.; H. H. Barnes, Secy.; Milton B. Cash, Treas.; consolidation of Forsyth Dining Room Fur-

niture Co., the Forsyth Chair Co., and Forsyth Mfg. Co.

Tenn., Knoxville—Furniture — Knoxville Table & Chair Co. expend \$10,000 on remodeling plant, brick and steel construction.

Tenn., Morristown — Desks — Morristown Desk Co., increased capital to \$50,000.

Tex., Beaumont—Ties, etc.—Neches Tie & Piling Co., Tom F. Coleman, Prest., handling ties and piling, mfr. same at Stamps, Ark. (Lately noted inctpd.)

FIRE DAMAGE

Fla., Jacksonville—Main sub-electric light and power station at Main and First Sts. loss about \$50,000; O. Z. Tyler, Supt. of Plants.

Fla., Panama Park, Jacksonville—Mildal Ice Co.'s plant; loss from \$30,000 to \$40,000

Fla., Winter Garden—Packing house operated by Winter Garden Citrus Exchange Asso. and American Fruit Growers; loss \$40,000.

Ga., Atlanta—Boulevard Primitive Baptist Church, 64 E. Ave., Elder A. U. Simms, Pastor; loss \$10,000.

Ga., Atlanta—Max Janke's residence, 12 Cooper St.; G. K. Pednls' residence, 129 Cooper St.

Mo., St. Louis—Building containing Mack Elliott Paper Co. and Superior Mfg. Co. loss \$100,000.

N. C., Goldsboro—N. J. Edwards' building; loss \$10,000.

S. C., Ridge Springs—Monetta Cotton Warehouse.

Tenn., Chattanooga—Ben M. Allison's home Crest Rd., Missionary Ridge; loss \$20,000.

Tex., Forney—Riter's garage; loss \$12,000.

Tex., Fort Worth—J. Lala, Whitley Pain & Paper Co., Henry Vaughn, Nelson & Boaz and Fort Worth Truck and Railer Co.'s buildings; loss \$50,000.

Tex., Fort Worth—Henry L. Vaughn Auto Co.'s building; loss \$100,000.

BUILDING NEWS

BUILDINGS PROPOSED

Apartment Houses.

Fla., Miami—Robert Osborn, 705 Collins Ave., plans store and apartment building Washington Ave. and 4th St.; \$25,000.

Fla., Miami Beach—William H. Bishop will erect building, Ocean Dr. between 14th and 15th Sts.; 4 apartments.

Fla., Miami Beach—Mrs. Annie Chrichton will erect building on Ocean Dr.; 4 apartments.

Fla., Miami Beach—W. C. Lumpkin, Champaign, Ill., will erect building; 12th St. and Euclid Ave.; 2 stories; 9 apartments; plans completed.

Ga., Atlanta—H. Cohen will erect two 2-story frame buildings at 223 and 225 N. Boulevard; also two at rear of 223 and 225 N. Boulevard; \$6000 each.

Ga., Atlanta—A. L. Smith will erect \$50,000 building, 458 N. Boulevard; 2 stories; brick veneer.

Ga., Atlanta—John H. Whisenant plans

building, Piedmont Ave. and 13th St.; \$150,000; site 137x200 ft.

Ga., Macon—Jordan Realty Co. will erect building, College St.; brick; 2 stories; four 5-room apartments.

Md., Baltimore—Gordon F. O'Neil, 9 Queen Anne Rd., will erect building, Queen Anne Rd. and Oakdale Path; about \$35,000; 3 stories; brick and shingles; 4 apartments with separate entrances; A. Lowther Forrest, Archt., 330 N. Charles St. (Lately noted.)

Mo., Kansas City—Charles E. Phillips will erect 3 four-story brick buildings, Brush Creek Blvd. and Main St.; each 95-ft. frontage and 12 apartments; \$72,000; Spanish design.

Mo., St. Louis—Samoto Realty & Building Co., will erect 5 apartment-flats, 1st Ave. north of Delmar Ave., Delmar Garden subdivision; sun parlors.

N. C., Charlotte—Mrs. Morris Moore will

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

erect building, 1203 E. Boulevard; \$10,000; four 5-room apartments.

Okla., Oklahoma City—E. C. Ross will erect building, 126 W. 17th St.; \$11,000; brick veneer.

Tenn., Nashville—C. C. Waggoner will erect building, Capers Ave. and N. 21st Ave.; \$30,000; 6 apartments.

Tex., Dallas—B. Schwartz will erect 20-room frame building, 1525-27 Corinth St.; \$10,000.

Tex., Dallas—Montie E. Williams; \$12,000 building, 104-106 S. Rosemont St., 38x60 ft.; 18 rooms; brick veneer; shingle roof; pine floors; Ye Planery Co., Archt.; owner builds.

Tex., Houston—L. Gabert will erect 2-story brick veneer building and garage, Eagle St. near San Jacinto St.; \$30,000; 14 apartments.

Tex., Houston—J. Sniderson will erect building, Crawford St. near Bell Ave.; \$14,500; 2 stories; brick and tile; 4 apartments; also 1-story box garage.

Va., Norfolk—W. M. Copperidge will erect building in West Ghent; 3 apartments; Moses & Gutzwiller, Archts.; C. S. Hancock, low bidder at \$12,987.

Va., Richmond—Davis Bros. plan \$80,000 building, 2604 Monument Ave.; 3 stories; brick.

Association and Fraternal.

Ky., Louisville—Ancient Free and Accepted Masons will erect Scottish Rite Cathedral, 620 S. 3rd St.; \$500,000; Nevin & Wischmeyer, Archts., Stark's Bldg.

La., New Orleans—Stevedores' & Longshoremen's Benevolent Society, 544 Camp St., will erect 1-story addition; ready for bids. Address Bldg. Comm.

Okla., Pawhuska—Rollan McCartney Post American Legion will erect building.

Tex., San Antonio—Temple Army Lodge No. 1105, will erect building; 2 stories 44x96 ft.; reinforced concrete, brick and tile; concrete floors; cast stone work; John M. Marriott, Archt.; bids June 12; separate bids for plumbing, wiring and gas steam radiators.

Va., Alexandria—George Washington National Masonic Memorial Assn., Louis A. Watres, Pres., Scranton, Pa., will erect \$2,500,000 memorial temple, George Washington Park; 200 ft. high; marble; Helmle & Corbett, Archts., New York; Osgood & Osgood, Consulting Archts., Grand Rapids, Mich.; Cranford Paving Co., Washington, D. C., contr. for excavation. (Previously noted.)

Bank and Office.

Ala., Tuscaloosa—Merchants Bank & Trust Co., Charles B. Verner, Pres., will organize company to erect building; 8 to 10 stories and basement; cost, including site, \$350,000 to \$400,000; banking room 40x120 ft.; stores on first floor, offices above; safety deposit boxes.

Ark., Little Rock—Little Rock Branch, Federal Reserve Bank of St. Louis, Louis A. F. Bailey, Mgr., Little Rock, will erect building; about \$350,000; 80x100 ft.; fireproof; reinforced concrete; composition roof; cement, composition, marble and tile floors; steam heat; 2 electric passenger elevators; Thompson & Harding, Archts., 509 Southern Trust Bldg.; Ault & Burton, probable contrs.; both Little Rock. (Lately noted.)

D. C., Washington—Chamber of Commerce of United States of America, D. A. Skinner, Sec., Mills Bldg., will erect building on Lafayette Sq.; \$1,500,000; 158x149 ft.; 4 stories; Cass Gilbert, Archt., 244 Madison Ave., New York. (Previously noted.)

Mo., Columbia—Cameron Trust Co. plans building.

Mo., Kansas City—J. C. Wirthman will erect 3 story addition to dentist-medico building, 31st St. and Troost Ave.; \$210,000; fireproof; 90x114 ft.; 2 passenger elevators; Charles A. Smith, Archt., 602 Finance Bldg.

Mo., St. Louis—Detering Agency will erect building, 3619-23 Gravois Ave.; \$60,000; 2 stories; 83x52 ft.; steel and terra cotta Charles N. Brietschuh, Archt.

Okla., Tulsa—J. E. Crosbie, Pres., Central National Bank, will erect 10-story bank and office building, Boston Ave. and 2nd St.

Okla., Tulsa—J. M. Gillett plans 8-story building, 4th and Boulder Sts.

Okla., Tulsa—Thompson Bros. & Hughes will erect 10-story building, Boston Ave. and 5th St.; construction begun.

Tenn., Knoxville—Gray Eagle Marble Co. will erect office and marble shed on Riverside Dr. and McCammon Ave.; \$15,000; steel.

Va., Appalachia—People's Bank, E. B. Moore, Cashr., plans \$100,000 building near Houston Hotel.

Va., Norfolk—Morris Plan Bank will remodel building at 243 E. Main St.; Nugent-Price Construction Co., low bidders at \$22,581. (Lately noted.)

W. Va., Bluefield—Commercial Bank; 7 story building; D. J. Phipps, Contr., Roanoke, Va.

Churches.

Ga., Atlanta—St. Mark's M. E. Church, Rev. S. E. Wasson, Pastor, plan \$50,000 Sunday School building.

Ky., Owensboro—Third Baptist Church will erect \$20,000 addition. Address The Pastor.

Mo., Independence—Presbyterian Church plans addition. Address The Pastor.

Mo., Springfield—Christ Episcopal Church will erect \$50,000 building; Early English Gothic type; native limestone; cutstone trim; slate roof; auditorium to seat 300; parish house; Hoener, Baum & Froese, Archts., St. Louis.

N. C., Avondale—Baptist Church plans building. Address The Pastor.

N. C., Cliffside—Baptist Church, Rev. W. K. Collins, Pastor, will erect church on Main St.

N. C., Greensboro—Hobart B. Upjohn Archt., Grand Central Terminal, New York, will receive bids until June 24 to erect Temple Emanuel, Wainman and Florence Sts.; \$75,000; brick stuccoed; slate roof; hardwood floors; low pressure steam heat; plans and specifications from Archt. (Lately noted.)

Okla., Muskogee—Grace Episcopal Church will erect church to seat 600; also parish house; \$80,000. Address The Pastor.

Okla., Oklahoma City—First Christian Church, Rev. Edgar D. Salkeld, Pastor, will erect \$50,000 annex; 3 stories; brick; 70 classrooms; first unit of \$125,000 Sunday school building.

S. C., Greenville—Earle St. Baptist Church, J. C. Keys, Chrmn., Bldg., Comm., will receive bids until June 24, care Jones & Trott, Inc., Archts., Jones-Bates Bldg., to erect building; 160 ft. long; 50 ft. and 80 ft. wide; brick, steel and frame; tin, and tar and gravel roof; wood, cement and cork tile floors; rolling partitions; wire glass; ventilators; 2-pipe steam heat, smokeless boiler; electric lighting; plans and specifications from Archts.

Tenn., Knoxville—First Baptist Church Jos. P. Gaunt, Chrmn., Bldg., Comm., will erect building, W. Main Ave. and Walnut St.; auditorium to seat 900; \$300,000; Dougherty & Gardner, Archts., Nashville. (Lately noted.)

Tenn., Memphis—Epworth Methodist

Church, S. W. McDowell, First Natl. Bank, Chrmn. Bldg. Comm., will erect \$62,000 building, Faxon and Waldron Sts.; seat 800; Jones & Furbringer, Archts.

Tenn., Memphis—First Methodist Church plans \$150,000 annex; swimming pool, library, etc. Address The Pastor.

Tex., Ballinger—Baptist Church will erect building lately noted; \$37,000; 88x100 ft.; concrete, brick and hollow tile; asbestos 4-ply roof; wood and concrete floors; hot air heat; A. R. Swartz, Archt., San Angelo; plans and specifications from W. C. McCarver, Ballinger; bids opened. Address D. C. Kirk, Chairman, Board of Deacons.

Tex., Eastland—Merriman Church will erect brick building; plans and specifications from T. W. Duncan; bids opened June 15.

Tex., San Antonio—John M. Marriott, Archt., Main and Quincy Sts.; is preparing plans for synagogue; reinforced concrete, brick and tile; tin roof; 55x95 ft.; plaster interior walls; bids opened.

City and County.

Fla., Winter Haven—City Hall—City will erect city hall; \$45,000; semi-fireproof; pressed brick, stone, terra cotta and stucco; fire and police departments, administration offices, courtroom, jail, etc.; B. C. Bonfoey, Archt., Tampa; ready for bids. (Lately noted.)

La., Shreveport—Library—City will erect \$170,000 library; 101x102 ft.; fireproof; brick and stone; tile and composition roof; concrete, Zenitherm, mastic and rubber floors; hollow fireproof and interior tile; ornamental terra cotta; wire glass; ventilators; steel sash and trim; J. P. Annan, Archt., 1319 Fairfield Ave.; bids opened June 27. (Lately noted.)

Md., Baltimore—Fire Stations, etc.—Bd. of Awards, Mayor Wm. F. Broening, Pres., will erect double fire stations at Bush and Carroll Sts. and 28th and Oak Sts.; Wm. F. Stone, Archt.; station at Bay View, Robert L. Harris, Archt., 13 W. Saratoga St.; comfort stations at Lafayette and Northeast Markets; John Freund, Archt., 1307 St. Paul St.; comfort station, Broadway Market and police sub-station on Belair Rd.; O. Eugene Adams, Archt., 1263 Calvert Bldg. (Lately noted.)

Miss., Jackson—Auditorium, etc.—City voted \$150,000 bonds, including \$90,000 for auditorium and \$35,000 for negro school. Address The Mayor. (Lately noted.)

N. C., Lenoir—Home—Board of County Commrs., J. C. Seagle, Chrmn., will receive bids until June 20 to erect brick building at County Home; plans from Frank B. Simpson, Archt., Raleigh. (Previously noted.)

Tex., Breckenridge—Office Bldg—City plans building at Elm and Court Sts. Address The Mayor.

Tex., San Antonio—Market—City, O. B. Block, Mayor, will erect market house annex; \$200,000; 1-story; refrigerating plant; Leo M. J. Dielman and Beverly Spillman, Archts.

Va., Richmond—Fire Station—City will erect fire station, Brookland Park Blvd. and Hawthorne Ave.; \$25,000 to \$30,000. Address Director of Public Safety.

Courthouses.

Ark., Charleston—Franklin County Commrs. will erect 2-story courthouse; \$40,000.

N. C., Wilson—County votes July 22 on \$250,000 bonds for courthouse. Address County Commrs. (Lately noted.)

S. C., McCormick—Town and McCormick County voted \$70,000 bonds to erect courthouse and jail.

Va., King George—County Supervisors, L. B. Mason, County Clk.; bids until June 15 to erect courthouse; \$25,000; 50x80 ft.; brick; slate roof; rift pine floors; E. G. Hedin, Architect, Fredericksburg; plans and specifications from County Clerk. (Lately noted.)

Dwellings.

Ark., Hot Springs—Dave Burgauer, Vice-Prest., Arkansas Trust Co., plans dwelling; brick; tile roof.

Ark., Little Rock—M. A. Youngblood will erect dwelling, 1812 Park Ave.; \$8000; 2 stories; brick veneer; also 2319 and 2323 Park Ave.; 1-story; brick veneer; \$5000 each.

D. C., Washington—J. B. Higdon will erect 2 dwellings, 2901-03 24th St., N. E.; \$13,000; 2 stories; frame; owner builds.

Fla., Tampa—W. C. Thomas will erect dwelling, 1209 Bayshore Blvd.; \$12,000; A. H. Johnson, Archt. and Construction Supervisor.

Fla., Tampa—Fred Hensley will erect Colonial residence on Memorial Highway; B. C. Bonfoey, Archt.

Fla., West Palm Beach—Herbert L. Donald, Cashier, First National Bank, plans \$10,000 dwelling on N. Olive St.

Ga., Atlanta—Mrs. J. M. High will erect dwelling, 45 W. 15th St.; 2 stories; brick veneer; \$12,500.

Ga., Atlanta—Harry Kilpatrick will erect 1-story frame dwelling, 3 Farmview Rd.; \$12,000.

Ga., Atlanta—L. A. Frawbridge will erect dwellings, 139-163-167-171 Cascade Ave.; 1 story; brick veneer; \$6000 each.

Ga., Atlanta—Mrs. Fred. McGonigal, 1295 Peachtree Rd., will erect dwelling, Andrews Dr. near Cherokee Ave.

Ga., Atlanta—G. S. Gower will erect 2 brick veneer dwellings, 2 Fairview Rd.; \$15,000.

Ga., Atlanta—F. C. Lyle will erect three 1-story frame dwellings on Atlanta Ave.; \$5500 each.

Ga., Atlanta—Mrs. Mamie Tugle will erect dwelling, 64 Ponce de Leon Ave.; \$35,000; 2 stories; brick veneer.

Ga., Atlanta—D. Lewenstein will erect 2 dwellings, 319 Hilliard St. and 79 Warren St.; 2 stories; frame; \$14,500.

Ga., Atlanta—G. G. Long will erect 14 dwellings, 108-32 Allene St. and 109-18 Brookline St.; \$70,000; 1 story; frame; also 1-story frame dwelling, \$5000.

Ga., Atlanta—Peachtree Oaks Co. will erect dwelling, 56 Kennesaw Ave.; \$16,000; 2 stories; brick veneer.

Ga., Atlanta—E. T. Winston will erect 4 dwellings; 1 story; frame; \$12,750.

Ky., Henderson—Consolidated Textile Corp., J. C. Magarahan, Mgr., will not erect cottages as lately reported.

La., New Orleans—Mrs. C. H. Beck will erect dwelling, N. Rocheblave and Tonfi Sts.; \$10,000; owner builds.

La., New Orleans—Wid. M. Scapanic will erect dwelling, Freret and Upperline Sts.; \$13,000; market and grocery; owner builds.

La., New Orleans—Standard Housing Co. will erect double cottages at Hickory and Pine Sts. and Pine and Cohn Sts.; total \$10,500; owner builds.

La., New Orleans—L. Rosenson, 1600 Baronne St., will erect 6 double cottages.

Md., Baltimore—George T. Phillips, 210 Goodwood Gardens, Roland Park, will erect

dwelling, Wendover Road near Charles St., Guilford; \$15,000; 2½ stories; brick.

Md., Baltimore—Louis Ducker, The Greenway, will erect residence, Charles and Highfield Sts., Guilford; 2½ stories and basement; car garage in rear; Roy G. Pratt, Archt., 323 N. Charles St.

Md., Baltimore—Eugene W. Koch, 2900 Spring Hill Ave.; 6 dwellings, 2906-16 Spring Hill Ave.; \$25,000; 2 stories; brick.

Md., Baltimore—Isaac Mindel 1737 N. Beutalon St., will erect 4 dwellings, 3035-30 Boarman Ave.; \$15,000; 2 stories; brick.

Md., Baltimore—Northwest Realty Co., Morris Bldg., will erect 6 dwellings, 3515-3603 Copley Rd., 3601-3604 Grantley Rd., 3503 Edgewood Rd. and 3505 Cedardale Rd.; total \$30,000.

Md., Baltimore—Jas. F. Oliver, 2937 Cedar Ave., will erect 4 dwellings, 300-06 W. 31st St.; \$12,000; 2 stories; brick.

Md., Baltimore—Marion F. Steinberger, The Marlborough, will erect dwelling, Taney Road and Wallis Ave.; \$10,000; 2 stories; frame.

Md., Baltimore—Moses Sverdlin will erect two-story brick dwellings, 2409-15 Eutaw Place; \$32,000; 22.8x77 ft.; slag roofs; Callis & Callis, Archts., 2055 Kennedy Ave.; owner builds.

Md., Baltimore—B. W. Minor, 224 W. Pratt St.; dwellings and garages, 1501-05 Hilton St.; 2 stories; brick; 25x35 ft. and 20x20 ft.; slate and tin roofs; hot water heat, \$18,000; Geo. Wessel, Archt., 2752 Winchester St.; owner builds.

Md., Baltimore—Mueller Construction Co., Gunther Bldg., will erect 14 dwellings, 3400 block University Pl.; about \$77,000; 22x98 ft.; 2½ stories; brick; slate roof; hardwood floors; hot water heat; electric lights; Matthew G. Mueller, Archt.; owner builds.

Md., Baltimore—Frank O. Singer, Jr., Equitable Bldg., will erect 2-story frame cottage, 2801 Loudon Ave.; 24.6x35 ft.; also two 2½-story frame cottages, 2803-05 Loudon Ave.; 30x37 ft.; total \$18,000.

Mo., Gower—Curtis Poe will erect dwelling.

Mo., Kansas City—B. R. Parkins will erect dwelling at 70th St. and the Paseo.

Mo., Kansas City—Walter Parkins, Kansas City Title & Trust Co., plans residence, 7012 Pasco.

Mo., Kansas City—G. E. Henry will erect dwelling, 70th St. and Paseo.

Mo., St. Louis—William S. Drozda Realty Co., 4006 Chouteau Ave., will erect eight 4 and 5-room brick bungalows, Oak Hill and Phillips Aves.; also 3 stores on 39th St., north of McKee Ave.

Mo., St. Louis—James C. Morfit will erect bungalows at Big Bend and Berry Rd. and at Big Bend and Sappington Rds., St. Louis County.

N. C., High Point—Dr. D. A. Stanton will erect \$10,000 dwelling.

N. C., Wilson—S. W. Richardson will erect dwelling on upper Nash St.

Okla., Oklahoma City—G. A. Nichols will erect 12 dwellings on W. 16th and W. 17th Sts.; \$5000 each.

Tenn., Memphis—E. B. LeMaster will erect dwellings at N. McLean Blvd. and Jackson Ave.

Tenn., Memphis—Memphis Investment Co. will develop 75-acre tract near Southwestern College; erect dwellings.

Tex., Dallas—A. G. McAdams will erect frame cottages, 6015-19-23-27-31-35-39 Gollad St.; \$4500 each; 5 and 6 rooms.

Tex., Dallas—Rick & Hurt will erect frame

cottages, 4135-4139 Travis St., 4731-4807-4811 Rick St., and 4730 Hurt St.; \$3000 each; 6 rooms.

Tex., Dallas—Perry Investment Co., E. Gordon Perry, Prest., 615 Good St., will erect 200 dwellings; about \$8000 each; 6 to 8 rooms; brick; slate, tile and wood shingle roofs; hardwood and tile floors; hollow fireproof and interior tile; ornamental terra cotta; safes; steel sash and trim; hot water heat; electric lights; construction by owner.

Tex., El Paso—J. F. Mullin will erect brick bungalows, blocks 3 and 4 Morningside Heights addition and block 91 Government Hill addition; total \$38,000.

Tex., San Antonio—Alexander Joske will erect \$150,000 residence, Grand View and Burr Road.

Va., Norfolk—R. H. Jones will erect frame stucco dwelling; \$12,500.

Va., Richmond—George H. Black will erect 4 brick dwellings, 3202-3208 Patterson Ave.; \$24,000.

Va., Richmond—P. S. Lubenski will erect dwelling, 3202 Chamberlayne Ave.; \$18,000; stories; brick veneer.

Government and State.

D. C., Anacostia—Bureau of Yards and Docks, L. E. Gregory, Chief, Navy Dept., Washington, will receive bids until June 21 to raise frame buildings, construct concrete foundations and floors, wood floors on sleepers with built-up asphalt and felt waterproofing, repair woodwork and painting and adjust heating system at Naval Air Station; drawing and specification No. 4648 from Bureau.

Hospitals, Sanitariums, Etc.

Mo., Mt. Vernon—Board of Mgrs., State Eleemosynary Insts., will erect patients' villa, wings to domestic, medical and children's buildings, State Tuberculosis Sanatorium; \$170,000; H. H. Hohenschield, Archt., 401-02 Odd Fellows' Bldg., St. Louis; bids opened June 17. (Lately noted.)

N. C., Shelby—No. 6 township, W. H. Jennings, Chrmn., County Commrs., will erect \$100,000 hospital; Louis H. Ashbury, Archt.; Lee Colyer, Landscape Archt., both Charlotte.

Tenn., Nashville—Board of Hospital Commrs., R. E. Fort, Chrmn., will remodel operating rooms, City Hospital; Asmus & Clark, Archts., 634 Stahlman Bldg.; bids opened.

Hotels.

Okla., Bristow—J. J. Egbert, Oklahoma City, will erect hotel; \$115,000.

S. C., Greenville—J. I. Westervelt, Greenville, Asa. G. Candler, Atlanta, Ga., and others organized company and plan \$500,000 hotel, Laurens and Washington Sts.; 7 stories; 150 rooms with bath; fireproof; G. Lloyd Preacher & Co., Archts., Atlanta.

Tex., Dallas—H. A. Evans will erect brick hotel, 3404 Junius St.; \$30,000.

Tex., Palestine—C. J. Crane, Jr., will erect hotel; \$125,000; 75x100 ft.; 4 stories; reinforced concrete; tar and gravel roof; cement floors; steam heat; passenger and freight elevators; Maurice J. Sullivan, Archt., Houston.

Miscellaneous.

Fla., West Palm Beach—Market, etc.—J. L. Ingraham will erect 2-story building on Clematis Ave.; \$13,500; first floor for market; apartments above; hollow tile and brick.

Fla., West Palm Beach—Clubhouse—Palm Beach Yacht Club will erect \$9000 clubhouse; construct \$3000 dock in connection; 600 ft. long; Harvey & Clarke, Archts.; H. C. Bartholomew, Clarence Wilcox, Geo. Whitting and F. W. Blandford, Bldg. Comm., will supervise construction.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

La., New Orleans—Market—New Prytania Market Co. will erect building, Prytania and Lyon Sts.; 1 story; pressed brick; tile roof; steel sash; Sam Stone, Jr. Archt., 714 Union St., is receiving separate bids for general contract, plumbing, mechanical equipment and refrigeration.

Mo., St. Louis—Clubhouse—North Hills Country Club will erect building on Florissant Rd.; \$125,000; slate roof; swimming pool; T. P. Barnett Co., Archt.

Tex., Beaumont—Fair—City, Geo. J. Roark, Mgr., will erect auditorium at South Texas State Fair Grounds; 90x179 ft.; steel, reinforced concrete and brick; F. W. Steinman & Son, Archts.; bids opened June 15. (Lately noted.)

Railway Stations, Sheds, Etc.

Tex., Dallas—Gulf, Colorado & Santa Fe Ry., F. Merritt, Chief Engr., will erect \$200,000 freight depot.

Tex., Wichita Falls—Wichita Falls & Northwestern Ry., C. W. Campbell, Div. Engr., will erect office building and freight depot.

Schools.

Ala., Anniston—Board of Education will erect 4-room addition to and alter Glen Addie School; hollow tile walls; steam heat; Lockwood, Poundstone & Billie, Archts., Commercial National Bank Bldg.; bids opened.

Ala., Gadsden—City Board of Education, J. H. Disque, Chrmn., will expend \$50,000 as follows: 6-room addition to Etowah Avenue School; 6-room school in South Gadsden; repairs to Disque High School, buildings 'n North Gadsden and on 11th St.; A. D. Simpson, Archt. (Lately noted.)

Ala., Selma—Board of Education will remodel and erect addition to Frances Thomas School; Frank Lockwood, Archt., Montgomery; bids opened.

Ark., Turrell—School Board, J. W. Caruthers, Chrmn., will receive bids until June 20 to erect school; 6 rooms and auditorium; brick veneer; ornamental terra cotta; metal roof; concrete floors; steam heat; plans and specifications at office Sieg & McDaniel, Archts., Central State Bank, Memphis, Tenn. (Lately noted.)

Fla., Brandon—Board of Public Instruction of Hillsborough County, Philip Shore, Prest., will issue \$20,000 bonds for Consolidated Special Tax District No. 11.

Fla., Miami—Dade County Board of Public Instruction will erect 2 additions to high school; 3 stories; 30 rooms; H. Harold Mundy, Archt.; St. John Constr. Co., low bidder at \$72,458. (Lately noted.)

Ga., Rome—School Trustees, J. Paul Cooper, Prest., will erect \$100,000 building at De Soto Park.

Ky., Calhoun—Board of Education will erect \$40,000 high and graded school; buff brick; 12 rooms, gymnasium and auditorium to seat 600; John T. Waller, Archt., Hopkinsville.

Ky., Louisville—Rev. Jno. O'Connor has permit to erect school at 2927 S. 4th St.; \$12,000.

Ky., Louisville—Louisville Conservatory of Music, 233 E. Gray St., will erect 3-story addition for dining room and kitchen.

La., Arcadia—Board of Education will erect \$100,000 high school; J. W. Smith, Archt., Monroe. (Lately noted.)

Md., Baltimore—Board of Awards, Mayor Wm. F. Broening, Prest., will receive duplicate bids until June 21 at office Richard Gwinn, City Register, City Hall, to erect additions to and alter Parental School, Maiden Choice La., Catonsville; drawings and specifications

at office J. F. Crowther, Inspector of Bldgs., City Hall.

Miss., Canton—Madison County School Board will erect high school.

Miss., Poplarville—School Board will erect building; \$40,000 bonds available.

Mo., Benton—Board of Education, School Dist. No. 19, R. M. Tirmenstein, Secy., will erect addition and improve school; R. K. Knox, Archt., Liberty Life Bldg., Cape Girardeau; bids opened June 15.

Mo., Bowling Green—Board of Education, A. K. Wilson, Secy., will erect addition to and remodel high school; bids opened.

Mo., Cape Girardeau—Board of Education, Chas. Stehr, Chrmn., Bldg. Comm., will expend \$15,000 to repair schools.

Mo., Festus—Board of Education will erect building.

Mo., Jefferson City—Lincoln University Board of Curators, C. H. Kirschner, Prest., will erect dormitory; 148-90 ft.; reinforced concrete and brick; slate roof; hollow fireproof tile; hardwood and concrete floors; metal doors; radiators, piping from central plant; electric lights; hand power elev 'or; E. C. Janssen, Archt., Chemical Bldg.; bids opened June 15. (Lately noted.)

Mo., Oxy—Oxy School Dist. Trustees will erect building.

Mo., St. Clair—Board of Education will erect building; \$17,000 bonds available.

Mo., St. Louis—Hosmer Hall, Mrs. Elma H. Benton, Princ., will erect school buildings on Wydown Blvd.

Mo., Smithville—South Gale School Dist. School Board, S. G. Young, Prest., will erect building; bids opened.

N. C., Bailey—Town voted \$10,000 bonds to erect addition to school. Address School Trustees. (Lately noted.)

N. C., Concord—Iredell and Rowan County Boards of Commrs. will jointly erect cottage at Jackson Training School; accommodate 30 boys.

N. C., Durham—Durham County Board of Education will erect school; Linthicum & Linthicum, Archts., Raleigh; bids opened.

N. C., Graham—Hawfield Board of Education will erect high school; Linthicum & Linthicum, Archts., Raleigh; bids opened.

N. C., High Point—City, Jno. W. Hedrick, Mayor, voted \$250,000 bonds to construct, repair and enlarge schools. (Lately noted.)

N. C., Lexington—Emmons Township No. 3, plans schools; election June 6 on bonds not exceeding \$20,000; C. A. Hoover, Chrmn., School Comm. (Lately noted.)

N. C., Marion—School Commissioners, J. Q. Gilkey, Chrmn., will receive bids until July 10 to erect high school; plans and specifications after June 15 from Erle G. Stillwell, Archt., Hendersonville.

N. C., New Hope—Chatham County Board of Education, W. R. Thompson, Supt., Plattsboro, will erect school near Bell's Church; 1 story; 6 rooms and auditorium; bids opened.

N. C., Raleigh—Board of Education will erect Thompson School; C. Gadsden Sayre, Archt., Anderson S. C. (Previously noted.)

N. C., Wagram—Board of Education will erect 10-room school; Linthicum & Linthicum, Archts., Raleigh; bids opened.

N. C., Winston-Salem—Forsyth County School Board, W. B. Speas, Supt., will erect schools in Old Town and Vienna townships; \$25,000 each; brick and frame; asbestos roofs; pine floors; hot air heat; W. C. Northup, Archt., Wachovia Bank Bldg.; bids opened. (Lately noted.)

N. C., Yadkinville—Yadkinville School Dist.

will vote July 11 on bonds to erect building Address Dist. School Trustees.

Okla., Bristow—Board of Education, J. M. Jackson, Prest., will erect addition to high and grade school; brick; Tonini & Bramblett, Archts., Terminal Arcade, Oklahoma City; bids opened.

Okla., Delaware—Delaware Consolidated School Dist. Trustees will erect high school; \$60,000 bonds voted.

Okla., Hartshorne—School Board plans addition to building; \$18,000.

Okla., Ponca City—Sisters of Divine Providence will erect \$50,000 school; brick and stone.

S. C., Charleston—School Commissioners, A. Burnet Rhett, Supt., will receive bids until June 19 to remodel and erect addition to James Simons School, King and Moultrie Sts.; plans and specifications at office Benson & Barbot, Archts., 26 Broad St.

S. C., Charleston—School Commissioners, A. Burnet Rhett, Supt., will receive separate bids until June 21 to alter and erect additions to Bennett School and Simonton School; also separate bids to install steam heat in Simonton School; plans and specifications for former from David B. Hyer, Archt., People's Bldg.; latter from J. D. Newcomer, Archt., 32 Broad St.

S. C., Chester—School Trustees will erect 6-room building for colored; A. D. Gilchrist, Archt., Rock Hill.

Tenn., Clarksville—City Board of Education, Emory Kimbrough, Prest., will erect additions to Howel and negro elementary school; \$150,000; R. H. Hunt, Archt., Chattanooga; bids opened. (Lately noted.)

Tenn., Mt. Pleasant—Board of Education Harry Hill, Chrmn., will erect 2-story high school; brick; Geo. D. Waller, Archt., Independent Life Bldg., Nashville; bids opened July 6. (Previously noted.)

Tenn., Memphis—City Board of Education, L. C. Humes, Prest., will erect addition to A. B. Hill School; 2 stories and basement; brick and concrete; Jones & Furbinger, Archts., Porter Bldg.; bids opened. (Lately noted.)

Tenn., Strawberry Plains—School Board, A. C. Parrott, Chrmn., will erect building; R. F. Graf & Sons, Archts., Knoxville; bids opened.

Tex., Austin—St. Edwards College will remodel Holy Cross Hall, damaged by storm; Giesecke & Harris, Archts., Littlefield Bldg.

Tex., Dallas—St. Mary's College Preparatory School will erect Garrett Memorial dormitory; Harold J. Abrams, Chrmn., Board of Trustees.

Tex., El Paso—County Board of Education, Myra Winkler, Supt., will erect \$20,000 school between Belen and Socorro; brick and concrete; 4 classrooms, principal's office, library and teacherage.

Tex., Galveston—State Medical College, Dr. Wm. Keiller, Act. Dean, will erect library and museum building; \$150,000; fireproof; also laboratory; \$12,500; frame.

Tex., Garrett—School Board, J. A. Cave, Secy., will erect building; 8 classrooms and auditorium, 58x128 ft.; brick; gravel roof pine floors. Address Young and Blocker Architects, Mexia. See Mch. Wanted—Seating.)

Tex., Lampasas—School Dist. Trustees plan building; considering \$40,000 bonds.

Tex., Orange—School Board, Mrs. Ida Neff, Prest., will receive bids until June 26 to erect fireproof building; separate bids on plumbing, heating and wiring; plans and specifications from C. H. Page & Bro., Archts., Austin. (Lately noted.)

Tex., White Deer—School Trustees, T. A.

Horn, Prest., will erect school; 2 stories and basement; Will R. Kaufman, Archt., Amarillo; bids opened June 17.

Va., East Radford—State Normal School for Women, Dr. J. P. McCormick, Prest., will erect addition to dormitory; Chas. M. Robinson, Archt., Times-Dispatch Bldg., Richmond; bids opened June 16. (Lately noted.)

Va., Franklin—School Board, Dr. W. H. Arthur, Clk., Farmers Bank Bldg., will erect high school; \$50,000; 10 classrooms and auditorium; brick and hollow fireproof tile; 5-ply gravel roof; rift pine, cement and hardwood floors; metal ceilings; steel sash and trim; iron and steel work; marble columns; steam heat; electric lights; W. Newton Diehl, Archt., New Monroe Bldg., Norfolk; bids opened. (Lately noted.)

Va., Surry—School Trustees, W. E. Seward, Chrmn., will erect building; \$25,000; 95x97 ft.; 1-story; brick and hollow fireproof tile; 5-ply tar and gravel and asbestos shingle roof; steel sash and trim; pine floors; steam heat; 2 K. W. generator and gasoline engine for lighting; ventilators; Chas. C. Wilson and G. R. Berryman, Asso. Archts., Columbia, S. C., Wilson, N. C. and Gastonia, N. C.; bids opened. (Lately noted.)

W. Va., Clarksburg—Clark Dist. School Board will erect \$50,000, grade school at Norwood; 15 rooms; Stephen W. Ford, Archt., Latstetter Bldg.

W. Va., Malden—School Dist. Trustees will erect high school.

W. Va., Warwood—Richland Dist. Board of Education, Harry E. Robinson, Secy., 1610 Warwood Ave., will erect building on Short Creek; \$30,000 to \$50,000; F. F. Faris, Archt., Wheeling; bids opened.

Stores.

Ark., Batesville—Hail Dry Goods Co. will erect extension; 60x100 ft.; concrete basement; 2 additional stories to present building; pressed brick and plate glass front; install steam heating plant, etc.

Ark., Hoxie—John R. Campbell will erect 2-story brick store and office building.

Ark., Little Rock—Geo. E. Shelton Produce Co. will remodel building, 422-24 E. Markham St.; \$11,000.

D. C., Washington—Max Sugar will erect 2-story brick store and flat building, 4807-17 Georgia Ave., N. W.; \$75,000; owner builds.

Fla., St. Petersburg—J. D. Pearce will erect building at 820 Central Ave.; \$10,000; 40x100 ft.; brick.

Ga., Atlanta—Benj. D. Watkins Co. will erect building on Forsyth St.

Ga., Augusta—Central Investment Co. will erect 2-story building, 700 block Ellis St.; 50x70 ft.; white pressed brick; terra cotta trim; G. Lloyd Preacher & Co., Archts.

Ky., Hopkinsville—Koppel Cloak Co. will erect 2 stores on Main St.

La., New Orleans—M. Fertel will remodel store and tenement, Rampart and Julia Sts.; Weiss & Dreyfous, Archts., Maison Blanche Building.

La., New Orleans—H. Handleman will erect department store, Dryades and St. Mary Sts.; 3 stories; 80x100 ft.; brick and mill construction; composition roof; Weiss & Dreyfous, Archts., Maison Blanche Bldg.

La., New Orleans—M. Kirschman will remodel store, Dauphine and Cluett Sts.; Weiss Dreyfous, Archts., Maison Blanche Bldg.

La., New Orleans—St. Charles Street Realty Co. will expend \$20,000 to remodel building, 611-17 St. Charles St.; owner builds.

Mo., Kansas City—East 18th St. Improvement Co., W. Eugene King, Prest., 1725 Troost Ave., will erect stores; \$60,000; owner builds.

Mo., St. Louis—Wm. S. Drozda Realty Co., 4006 Chouteau Ave., will erect 3 stores. (See Dwellings.)

Mo., Southwest City—C. L. Wilson will erect business building; brick.

N. C., Mount Airy—D. E. Nelson, Ararat, will erect \$15,000 building; 66x95 ft.; 2 stories; brick and stone; metal roof; cement floors; electric lights; electric elevator, 5x6 ft.; plans by Mr. Daber, care North Carolina Granite Corp.; owner builds. (Lately noted.)

N. C., Winston-Salem—B. S. Womble will erect store at Cherry and 4th Sts.; 25x88 ft.; 2 stories and basement; brick.

N. C., Winston-Salem—S. L. Collins will erect \$10,000 store, E. 8th St. near Ridge Ave.

S. C., Clover—M. L. Ford & Sons will erect 2-story brick building on Kings Mountain St.; 30x100 ft.

S. C., McCormick—J. T. Fooshe will erect building to replace structure lately noted burned.

Tex., Dallas—Sam P. Cochran will erect 3-story building, 2009 Main St.; \$15,000; brick.

Tex., El Paso—R. Fessinger will erect store in Campbell's Addition; \$20,000; concrete.

Tex., El Paso—W. L. Pringle will erect 2 stores in Satterthwaite Addition; \$10,000; brick.

Tex., Victoria—A. Simon will erect 4 stores on E. North Ave. near Buhler Addition.

Va., Hopewell—R. L. Tippet, Sr., will erect building for Elder Drug Co.; \$40,000; 75x110 ft.; 2 stories and basement; brick and cement; Barrett roof; steam heat; electric lights; plate glass front; tile floors; terra cotta trim; skylight; ready for bids.

Va., Lynchburg—J. R. Millner Co., B. K. Merryman, Prest., will rebuild store damaged by fire.

Va., Norfolk—Dr. C. T. Parrish will expend \$35,000 to repair building, High and Edingham Sts., for A. H. Goodman & Bro.

W. Va., Richwood—Geo. T. Coe will erect 2-story store and office building on Oakland Ave.; brick and tile.

Theaters.

La., Shreveport—Stewart Theater Co., Inc.

C. C. Stewart, Prest., will erect moving picture theater; \$46,000; 40x150 ft.; brick and concrete; ornamental terra cotta; concrete roof and floors; metal doors; natural gas heaters; electric lights; ventilators; Edw. Neld, Archt.; construction under supervision of Jno. Arthur, company's superintendent. (See Machinery Wanted—Curtain Pullers (Automatic).)

Warehouses.

Fla., Ocala—Lewis-Chitty Consolidated Grocery Co. will erect warehouse on Ocklawaha Ave.

Fla., St. Petersburg—Lewis & Thorn will erect building; 40x100 ft. (See Mch. Wanted—Building Material.)

La., New Orleans—Moise H. Goldstein, Hibernia Bank Bldg., prepared plans for warehouse at Conti and Cortz Sts.; 1 and 2 stories; 128x173 ft.; reinforced concrete and brick.

Md., Baltimore—Geo. Harryman, 1411-13 Fleet St., will erect warehouse at 1434 Fleet St.; \$15,000; 41x80 ft.; 4 stories; brick.

Md., Baltimore—Thos. Mullan, 3945 Greenmount Ave., will erect warehouse in rear of 2300 Taylor St.; \$12,000; 1½ stories; 60x100 ft.; frame.

N. C., Reidsville—R. S. Montgomery, Chrmn., Comm., to erect warehouse for Tri-State Tobacco Growers' Co-operative Marketing Assn.; W. C. Northup, Archt., Winston-Salem. (Lately noted.)

S. C., Union—Union-Buffalo Mills Co. will enlarge cotton warehouse; J. E. Sirrine & Co., Engrs., Greenville.

Tex., Dallas—Federal Glass & Paint Co., Wesley Norris, Gen. Mgr., will erect warehouse and offices, North Lamar and Caruth Sts.; \$125,000; 5 stories; reinforced concrete and brick; C. D. Hill & Co., Archts. (Previously noted.)

Tex., Houston—National Supply Co.; 1-story warehouse, foot Semmes St.; \$12,500; frame covered with iron.

W. Va., Huntington—H. E. Hines, Box 231, will erect \$20,000 warehouse and office building, present unit being 1/6th of structure; 40x70 ft.; concrete, steel and hollow fireproof tile; built-up gravel roof; concrete floors; hot water heat in offices, gas in warehouses; electric lights; electric freight elevator; Meador & Handloser, Archts.; owner builds; steel contract let.

BUILDING CONTRACTS AWARDED

Apartment Houses.

Fla., Miami—N. L. Stevenson and Jos. L. Hickson; Granada Apts., Fort Dallas Park; 5 stories; 180x100 ft.; reinforced concrete and steel; Spanish tile roof; Hampton & Reinert, Archts.; P. J. Davis, Contr.

Fla., Miami—R. W. Gates; building, 12th Ave. and 4th St.; \$30,000; hollow tile and stucco; tile floors in baths; 2 stories; 8 apartments; M. D. Sammot, Contr.

Fla., St. Petersburg—Elizabeth M. Kiplinger; \$12,000 to \$15,000 building; 42x76 ft.; wood; slate covered asphalt shingle roof; pine floors; hot water heat; electric lights; C. L. Kiplinger, Archt.-Contr.

Ga., Atlanta—Jos. A. McCord; \$40,000 building, 77-79 7th St.; 3 stories and basement; Ezz Flagler Co., Contr.

Ga., Savannah—Julius Morgan; building 37th St. near Bull St.; brick veneer; Colonial or Georgian design; gas steam radiator heat; automatic hot water system; stairway, fireplaces, built-in; bookcases, porches, separate entrance and private garage for each apartment;

Levy, Clarke & Bergen, Archts.; Carson Construction Co., Contr.

Va., Norfolk—Mrs. A. F. Black, 627 Olney Rd.; \$50,000 building, Mantoe St. and Fairfax Ave.; 60x75 ft.; 9 apartments; hollow tile and brick veneer; Barrett roof; hardwood floors; vapor heat; K. L. Hullsick Co., Archt., 400 Flat Iron Bldg.; E. E. Weddle & Co., Contrs., 224 Kimball Terrace.

Association and Fraternal.

D. C., Washington—Boss & Phelps; building, 2127 P. St., N. W.; \$100,000; 4 stories; brick; Walter Case, Contr.

Fla., West Palm Beach—Benevolent Protective Order Elks; building N. Olive St. and 1st Av.; \$40,000; 2 stories and basement; erect 2 hotel wings later; total cost \$70,000; lodge room, 7x77 ft., bowling alleys, showers, etc.; B. F. Hoffman & Co., Contrs.

Tenn., Knoxville—General Building & Finance Co.; apartment house; \$225,000; 102x169 ft.; fireproof; gravel roof; concrete and hardwood floors; ornamental terra cotta

ta; interior tile; metal doors; wire glass; ventilators; steel sash and trim; steam heat; Barber & McMurray, Archts.; J. M. Dunn & Son, Contrs.

Bank and Office.

Fla., Jacksonville—Standard Oil Co., W. W. Zachary, Dist. Mgr.; building, Riverside Ave. near Lackawanna Ave.; \$100,000; 80x100 ft.; concrete, steel and terra cotta; tile roof; 2 stories and basement; plans by company's Archt.-Engr.; A. Bentley & Sons Co., Contrs., Jacksonville; also plans to improve water front, erect recreation building and dining hall.

Fla., West Palm Beach—Tri-State Construction Co., Memphis, Tenn., has contract to erect \$44,000 store and office building, Rosemary St.; also \$40,000 apartment and office building.

Md., Federalsburg—First National Bank; \$15,000 to \$20,000 building; 42x38 ft.; 2 stories and mezzanine; brick and terra cotta; slag roof; wood, composition, concrete and cork floors; steam heat; electric lights; Robert L. Harris, Archt., 13 W. Saratoga St.; T. L. Jones & Son, Contrs., 410 W. Saratoga St., both Baltimore. Address Archt.

Tenn., Knoxville—Union National Bank will expend \$160,000 to remodel adjoining building; 50x140 ft.; lobby 75x20 ft.; Irigson Bros., Inc., Archts.-Contrs., 485 Fifth Ave., New York.

Churches.

D. C., Washington—Twelfth St. Christian Church; \$22,900 building; 40x60 ft.; brick; concrete floors; steel, wood and tar gravel roof; W. R. Metz, Archt., 14 Crescent Pl., Takoma Park; Collegeman Co., Contr., 509 E St., N.W.

Fla., West Palm Beach—Friendship Baptist Church, Colored; \$36,000 church, 1st Ave. and Division St.; Tri-State Construction Co., Contr.

Fla., West Palm Beach—Methodist Church; \$72,000 building, 7th and Division Sts.; tile and brick; Tri-State Construction Co., Contr.

Ky., Owensboro—Third Baptist Church; Sunday school addition; 24x148 ft.; \$20,000; 2 stories and basement; brick; kitchen and banquet hall in basement; D. B. Whiteley, Contr.

La., New Orleans—St. Charles Ave. Christian Church; building; Hy Clay and St. Charles Aves.; \$39,765; James A. Petty, Contr.

Md., Ellerslie—Evangelical Bretheran Church, Rev. Mr. Engles, Pastor; church and parsonage; 40x50 ft. and 26x30 ft.; \$15,000; brick; composition roof; semi-hardwood floors; probably steam heat; city lights; J. B. Brower, Jr., Archt., Box 393; J. H. Carter, Contr., both Cumberland.

Mo., Galt—Methodist Church; brick and tile building; kitchen; M. Kearn, Milan, contr. at \$10,032.

W. Va., Marlinton—M. E. Church, South, F. M. Sydnor, Chrmn. Bldg. Comm.; \$60,000 building; 60x109 ft.; brick; W. A. Rayfield & Co. Archts., Birmingham, Ala.; W. W. Kennison, Contr., Hillsboro, W. Va.

City and County.

N. C., High Point—Municipal Building—City, John W. Hedrick, Mayor; municipal building and auditorium; 3 stories and basement; courtroom to seat 1500; \$250,000; Otis elevator; Harry Barton, Archt., Greensboro; J. A. Jones Construction Co., Charlotte, Contr., at \$167,000; City Plumbing Co., High Point, plumbing, \$7124; Pauly Jail Building Co., St. Louis, cell work, \$6783; Peoples Electric Co., electrical work, \$12,

060; Hunt Bros., heating and ventilating, \$11,690; both Winston-Salem.

W. Va., Charleston—Jail, etc.—County; jail and addition to courthouse on Virginia St.; Warne, Tucker & Patterson, Archts., Masonic Temple Bldg.; Wise Granite & Construction Co., Richmond, contr. at \$188,900; Sensibaugh Electrical Co., Charlottesville, electric work, \$4685; West Virginia Heating & Plumbing Co., heating and plumbing, \$31,525; steel purchased.

Courthouses.

Ga., Macon—Bibb County, J. Ross Bowdre, Clk.; remodel and erect addition to courthouse; \$400,000; 4 stories; 120x120 ft.; reinforced concrete; concrete foundation; heating plant; electric wiring and conduits; Curran R. Ellis, Archt.; Henry J. Behr, Asso. Archt., 201½ Cotton Ave.; Southern Ferro Concrete Co., Contr., Atlanta; Central Georgia Plumbing & Heating Co., plumbing, \$11,396; American Plumbing and Heating Co., heating, \$13,491; Morris Putzel, electrical work, \$6325; H. C. Anderson, painting, \$3553; all Macon.

Miss., Vicksburg—Board of Supervisors, J. G. Sherard, Clk., will repair courthouse; W. A. Stanton, Archt.; Enterprise Plumbing & Metal Works, Contr., at \$10,958.

Dwellings.

D. C., Washington—R. C. Hurley and E. V. Toner; 2 dwellings, 216-18 14th St., N. E.; \$13,500; 2 stories; brick; J. A. Richards, Contr.

Fla., Miami Beach—Frederick J. Osius, Racine, Wis.; \$100,000 residence, Lincoln Rd. and Miami Ave.; 2 stories; tile and stucco; Mercer tile trim; stone and tile mantels; tile wainscoting in bathrooms; living room, 40x25 ft., roof garden, 30x30 ft., patio, porches, octagon shaped tower with copper covered dome; McLanahan & Bencker, Archts., Philadelphia; John B. Orr, Contr., Miami.

Ga., Macon—Randolph Jaques, Jr.; \$15,000 dwelling; G. W. Fannin, Contr.

Ga., Macon—Emmett McKenzie; \$15,000 residence; G. C. Amerson, Contr.

Ga., Macon—Evans Robson; \$10,000 dwelling, Onborne Place; L. A. Tharpe, Contr.

Ga., Macon—O. A. B. Sparks; dwelling; W. G. Mangham, Contr.

La., Floyd—R. J. Darnell & Co., Memphis, Tenn.; twenty 2, 3 and 4-room dwellings and two 25 and 30-room hotels at Floyd Station; M. H. Reynolds, Contr., Oak Grove.

La., New Orleans—Miss H. Mins; duplex dwelling, and Lowerline Sts.; \$10,000; A. Carrett, Contr.

La., New Orleans—Eureka Homestead Society; dwelling, Carrollton Ave. and Burthe St.; \$7500; Joseph A. Lennox, Contr.; also dwelling, S. Robertson and Howard Sts.; \$4700; Albert N. Robelot, Contr.

La., New Orleans—Edw. Haspel; dwelling, Audubon Blvd. and Poplar St.; \$10,500; Jones & Roessle, Contrs.

La., New Orleans—Florence Loeber; 2 duplex dwellings, Calhoun and Freret Sts.; \$10,000; Denis & Handy, Contrs.

La., New Orleans—Security Building & Loan Assn., Frederick W. Sinclair; dwelling, Audubon and Carrollton Sts.; 2 stories; stucco; Jones & Roessle, Contrs., at \$19,500.

La., New Orleans—Sam Hellman; dwelling, Broadway and Freret Sts.; \$14,000; E. W. McKee, Contr.

Md., Baltimore—Jacob Kartman, 2310 Whittier Ave., and others; 2-story dwelling, 3700 Dorchester Rd.; hollow tile; 38x54.6 ft.; slate roof; hot water heat; \$11,000; Daniel S. Sackerman, Archt.-Contr.

Md., Baltimore—Annie R. Lamb, Sycamore Rd. opposite Hollen Rd., Cedarcroft; dwelling, Sycamore Ave. near Gittings Ave.; \$12,000; 2½ stories; brick; 25x38 ft.; hot air heat; Walton Co., Archt.-Contr., York and Cedarcroft Rds.

Md., Baltimore—John M. Willis, 3 Merryman Court, Roland Park; dwelling and garage, Northway and Underwood Rd., Guilford; \$33,000; 53x36 ft. and 22x22 ft.; brick and hollow tile; 2½ stories; slate roof; E. L. Palmer, Jr., Archt., 513 N. Charles St.; Gladfelter & Chambers, Contrs., Roland Ave. and 36th St.

Miss., Vicksburg—Simon Sartorius; dwelling on Baum St.; H. H. Davis, Contr.

Mo., Columbia—Mrs. A. B. Drescher, duplex house; 10th and Cherry Sts.; 12 rooms; \$10,000; Davis & Phillips, Contrs.

Tex., Dallas—Rev. P. M. Donahue; home, 1320 S. Harwood St.; \$15,000; 40.8x52.10 ft.; brick veneer; composition slate roof; hardwood and pine floors; W. Roberts, Archt.; L. J. Mahoney, Contr., both Wichita Falls.

Va., Norfolk—Dr. E. H. Claud; dwelling, Dinwiddie St. near Craford Pl.; \$12,000; 2 stories; brick; S. B. Hutchins, Contr.

Va., Norfolk—R. H. Jones; dwelling, Craford Pl. near Dinwiddie St.; \$12,500; 2 stories; frame stucco; Jones-Speer & Co., Contrs.

Va., Norfolk—J. L. Browdey; dwelling in Winona; \$18,000; brick; 2 stories; Clarkson-Meredith Construction Co., Contr.

Hospitals Sanitariums Etc.

Fla., Miami Beach—Dr. A. Mitchner, New York, will erect \$150,000 hospital; 272 ft. long; hollow tile and stucco; Spanish tile roof; 3 stories at center; 2-story wings; 8 porches, elevators; J. J. Davis, Archt.-Contr., Miami.

Hotels.

Fla., St. Petersburg—Ponce de Leon Hotel Co., will erect \$100,000 hotel; 42x120 ft.; steel frame; Barrett roof or equal; hardwood and tile floors; hollow fireproof tile; steam heat; Otis elevators; George Feltham, Archt.; Emerson M. Wood, Contr.

Ky., Louisville—Victoria Hotel Co., Wm. Farrell, Prest., 10th St. and Broadway; \$100,000 addition; 100 rooms; also 60-car garage; contract let.

La., Floyd—R. J. Darnell & Co., Memphis, Tenn.; 2 hotels; M. H. Reynolds, Contr., Oak Grove. (See Dwellings.)

N. C., Asheville—Asa Candler, Atlanta, Ga., rene Bachelor, Greenville, S. C., Archibald Nichols, Asheville and others are reported to erect \$1,000,000 hotel on Haywood St.; 10 stories; 250 rooms; G. Lloyd Preacher & Co., Archts., Augusta, Ga.; Foundation Co., Contr., 120 Liberty St., New York.

Miscellaneous.

Md., Cumberland—Undertaking—Lewis Stein, N. Centre St.; undertaking establishment and apartments, 27 Frederick St.; \$35,000; 2 stories; 40x106 ft.; brick; stone or terra cotta trim; H. W. Allen, Archt.; Hazlewood & Clauson, Contrs., both MacFarlane Bldg., Cumberland. (Lately incorrectly noted at Md., Easton.)

Tenn., Memphis—Fair—Memphis Park Commission, L. M. D'Saussure, Secy.; administration building, rest room and main entrance at Tri-State Fair Grounds; \$50,000; Chas. O. Pfeil and Geo. Awsumb, Asso. Archts., Union & Planters Bank Bldg.; Blair Constr. Co., Contr.

Tex., Wichita Falls—Clubhouse—Wichita Falls Country Club; \$57,000 building; Whitehall Construction Co., Contr.

Schools.

T. C., Washington—Rev. P. DeProla; \$54,000 school, 3406 12th St., N.E.; 3 stories; brick; C. J. Cassidy Co., Contr.

Fla., Jacksonville—Board of Public Instruction; \$34,972 negro school, South Jacksonville; 2 stories; brick; O. P. Woodcock, Contr.

Ga., Lagrange—Board of Education, A. H. Thompson, Prest.; negro school building, E. Depot St.; 3 stories; brick veneer; 8 classrooms, domestic science and manual training departments, kitchen and laundry; Lockwood & Poundstone, Archts., Forsyth Bldg., Atlanta; Allen Construction Co., Lagrange.

La., Alexandria—Directors of State Colony and Training School for Feeble Minded, Dr. J. C. Wills, Chrmn., Shreveport; \$76,000 dormitory; 2 stories and basement; concrete and brick veneer; Moise H. Goldstein, Archt., Hibernia Bank Bldg.; W. J. Quick, Contr., both New Orleans.

Md., Baltimore—Friends' School, Park Ave. and Laurens St.; \$30,000 extension to administrative building; 4 offices, locker room, open air study on roof; Lawrence Hall Fowler, Archt., 347 N. Charles St.; Whiting-Turner Constr. Co., Contr., 403 Stewart Bldg.

Miss., Jackson—Board of Education; negro school; \$16,450; Currie & Dyer, Contrs. Mo., Chaffee—Board of Education; high school; Geo. Nunn & Sons, Contrs.

Mo., Marshall—School Board; \$35,000 Benton grade school; 91x140 ft.; brick and concrete; slate and built-up roof; maple floors; Owen, Payson & Carswell, Archts. Address Wm. P. Gollong, Contr.

Mo., Poplar Bluff—School Board, P. C. Hayes, Secy.; Benton School; \$54,275; 2 stories and basement; brick; steam or hot water heat; 8 rooms; Martin Laubis, Archt.; Alfred W. Greer, Contr.

Mo., Warrensburg—Central Missouri State Teachers College Board of Regents, R. J. Grover, Prest., will erect addition to assembly hall and administration building; \$150,000; 75x115 ft.; 64 ft. high; stone and reinforced concrete; cement and tile roof; cement floors; fan system of heat, \$12,000; electric lights, \$4,000; Samuel Hitt, Archt., Main St., Kansas City; Ed. Marxer Co., Contr., Des Moines, Iowa, and Warrensburg. (See Machinery Wanted—Heating and Ventilating; Millwork; Iron and Brass Work; Plastering.)

N. C., Burlington—Board of Public Instruction, Prof. M. Terrell, Supt., school at Elmira; \$19,700; brick; 6 classrooms and auditorium; electric lights; Luther Sharpe, Contr.

N. C., Elizabeth City—Board of Education will erect high school, graded school and temporary frame building; Milburn, Helster & Co., Archts., Washington, D. C., and Durham, N. C.; bids opened June 17. (Lately noted).

N. C., Ellenboro—Board of Education will erect \$32,000 school; brick; contract let.

N. C., Greenville—East Carolina Teachers' College, Dr. R. W. Wright, Prest.; dormitory and addition to administration building;

H. A. Underwood, Engr., Joint Bldg., Comm., Raleigh; Jno. E. Beaman, Raleigh, contr. at \$163,200; W. O. Mitcham, Goldsboro, plumbing, \$7188; Grinnell Co., North Charlotte, heating, \$12,362; plans include brick, metal lumber and concrete; tile roof; rift pine and composition floors.

N. C., Reidsville—School Board, W. S. Sommers, Secy.; high school; 2 stories; metal lumber with brick facing; Barrett tar and gravel roof; concrete, tile and rift pine floors; ornamental terra cotta; metal ceilings; ventilators; W. C. Northup, Archt., Winston-Salem; L. B. Flora, Danville, Va., contr. at \$120,456.

Okl., Hollister—Shool Board, Consolidated Dist. No. 3; 2-story school; \$18,722; brick; tar and gravel roof; pine floors; concrete foundation; rolling partitions; Butler & Huseman, Archts.; Chas. Steckler, Contr., 628 S. 8th St., both Chickasha.

S. C., Cheraw—Board of Education; 8-room brick school; J. F. McBride, Contr.

Tenn., Bearden—County Board of Education, Knoxville; \$16,950 school; 2 stories; 105x42 ft.; auditorium, 60x85 ft.; 5 classrooms, manual training department and economic department; Manley & Young, Archts.; Smith & Goolsby, Contrs., both Knoxville.

Tenn., Etowah—City, J. O. Nichols, Mayor; \$16,599 high school; 100x42 ft.; brick; composition roof; Manley & Young, Archts.; W. A. Calhoun, Contr., both Knoxville.

Tenn., Jackson—Lambuth College Trustees, Dr. J. W. Blackard, Chrmn.; administration building; \$103,000; R. A. Heavner, Archt.; E. G. Parish, Contr.

Tenn., Maynardville—Union County Board of Education, W. H. Thomas, Supt., \$10,000 high school; Manley & Young, Archts., Knoxville; Nicely, Nicely & Monroe, Contrs., Maynardville.

Tex., Forney—School Board, J. M. Davis, Jr., Prest.; \$50,000 high school; 2 stories and basement; brick; bowl auditorium to seat 400; C. W. Bulger & Son, Archts.; Christy Dolph Constr. Co., both Dallas.

Tex., La Feria—School Dist. Trustees, J. O. Davis, Secy.; brick and concrete school; M. L. Waller & Co., Archts., San Antonio; M. C. Parker & Co., Contrs., Houston.

Tex., Port Neches—School Trustees, C. C. Hawkins, Prest.; \$40,000 building; 60x90 ft.; brick and frame; concrete and yellow pine floors; steel sash and trim; American Ideal heating plant; electric lights; ventilators; F. W. Steinmann & Son, Archts., Beaumont; A. C. Bigelow, Contr., Port Neches.

Tex., Teague—School Board, J. E. Lindsey, Prest.; high school; \$70,000; brick; C. H. Page & Bro., Archts., Austin; C. E. Johnson, Contr.

Va., Belspring—Pulaski County Board of Education, Pulaski; 8-room 1-story brick school at Dublin and similar 6-room building at Belspring; \$18,000 and \$13,500; J. D. Huford, Contr., Pulaski.

Va., Dublin—Pulaski County Board of Education, Pulaski; \$18,000 school. (See Va., Belspring.)

Stores.

Fla., Kissimmee—T. M. Rivers; \$15,000 store and hotel; 70x75 ft.; 2 stories; brick veneer and hollow fireproof tile; metal roof; concrete and tile floors; electric lights; N. F. Bass, Contr.

Fla., West Palm Beach—Jno. Collie; \$14,000 store in Clow addition; 40x140 ft.; tile and concrete; H. A. Augustus, Contr.

Fla., West Palm Beach—W. F. Gale; \$27,000 store, Poinsettia St., between Banyan and Althea Sts.; 50x85 ft.; reinforced concrete; H. C. Daniels, Contr.

Fla., West Palm Beach—J. C. Gregory; \$30,000 store, Clematis Ave.; 45x149 ft.; tile and concrete; C. J. Meerdink, Contr.

Fla., West Palm Beach—J. W. Williams; \$13,000 store on Rosemary St. between Althea St. and First Ave.; 46x66 ft.; tile; H. A. Augustus, Contr.

Ky., Louisville—Paeselee-Gaulbert Co.; additions at 15th and High Sts.; \$125,000; contract let.

La., New Orleans—E. V. Benjamin Co.; 2-story brick store, Constance and Calliope Sts.; \$66,734; O. M. Gwin Const. Co., Contr.

La., New Orleans—Kottemann Furniture Co.; 2-story store, Marengo and Magazine Sts.; \$17,600; H. W. Bond & Bro., Contrs.

N. C., Salisbury—T. B. Brown, Box 418; store and office; \$18,000; 40x95 ft.; 2 stories; brick; metal ceilings; A. R. Lazenby, Contr.

N. C., Winston-Salem—R. J. Reynolds Real Estate Co.; stores on 3rd St. between Church and Chestnut Sts.; \$20,000; 50x160 ft.; 1 story; brick and concrete; Barrett roof; wood floors; steel sash and trim; W. C. Northup, Archt., Winston-Salem; Gray Concrete Co., Contr., Thomasville.

Tex., Houston—Waddells House Furnishing Co., remodel store at Fannin St. and Prairie Ave.; \$46,000; Tom Tellesen, Contr.

Tex., Houston—B. F. Bonner; \$28,000 building at Main St. and Calhoun Ave.; 125x125 ft.; 1 story; brick and concrete; Hubbard & Miller Constr. Co., Contr.

Theaters.

Fla., Eustis—Mattocks-Wheeler Bldg. Co., J. E. Mattocks, Prest.; \$30,000 theater; 58x125.6 ft.; brick, concrete and tile; stone trim; windows of pressed lens glass with tile and marble facings; metal ceilings; concrete and hardwood floors; wire glass; steel sash and trim; seating capacity 500 to 600; 2 stores on first floor; Allan J. McDonough, Archt., Eustis; J. B. Southard, Contr., Orlando.

Tex., Dallas—Gene Lewis, Cycle Park Theater; \$30,000 open air theater; 105x42 ft.; stucco; composition roof; wood floors; electric lights; L. H. Lacy, Archt.-Contr.

Warehouses.

S. C., Ware Shoals—Ware Shoals Mfg. Co.; 2-story addition on 3 compartment warehouse; also concrete warehouse platforms and chimney foundation; J. E. Sirrine & Co., Engrs.; Fiske-Carter Constr. Co., Contr., both Greenville.

Va., South Boston—R. R. Motley; tobacco warehouse; contract let.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Agitator.—Sam T. Hodges, Gen. Mgr., National Medicine Co., Jacksonville, Fla.—To purchase agitator for mixing liquids to attach to 200 gal. cask.

Art Glass.—F. G. Marble, Leland, Miss.—Art glass for church building.

Asphalt.—Gilbert Gilchrist, County Engr.,

Tom Green County, San Angelo, Tex.—Asphalt for 15.44 mi. road construction.

Boat Hulls.—U. S. Engr. Office, Nashville, Tenn.—Bids until June 26 to construct 2 steel quarter boat hulls; further information on application.

Boiler.—Board of Awards, Dept. of Agri-

culture, Washington, D. C.—Bids until June 27 to furnish and install 300 H. P. Stirling water tube boiler in Dept. of Agriculture power plant; information on application.

Boilers.—Sam'l T. Williams, 223 N. Calvert St., Baltimore, Md.—One or more boilers, about 72-in. x 18-ft., suitable for 100 to 125

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

lbs. pressure, also smoke stack. (Machinery Dealer.)

Boiler Plant, etc.—Treasury Dept., Supvg. Archts.'s Office, Washington, D. C.—Bids until June 22 for boiler plant' except building and smoke-stack, outside heating, electric, water and sewer services, deep wells, pumping plant and water supply systems, sewerage disposal plant for U. S. Veterans' Hospital, Tuskegee, Ala.; plans on file.

Bolts (Machine).—East Carolina Railway, Tarboro, N. C.—To purchase carload mixed machine carriage and track bolts.

Brass Clips.—Fidelity Can Co., 610 S. Caroline St., Baltimore, Md.—Small brass clips for end of pipe bands, made of round wire.

Branding or Stenciling Outfits.—Norfleet Hardware Co., Winston-Salem, N. C.—To purchase electric branding or stenciling outfit.

Breakwater.—U. S. Engr. Office, Custom House, Boston, Mass.—Bids until June 22 to furnish and place stone in breakwater near Bar Harbor, Me.; further information on application.

Brick and Tile Plant.—Porter Herold, Almorris, W. Va.—Small plant to mfr. brick and tile.

Bridge Construction.—City, Comsn., Frank H. Owen, Chrmn., Jacksonville, Fla.—Bids until June 22 for concrete bridge over Hogans Creek on East Bay St.; plans, etc., from City Engr.

Bridge Construction.—Hemphill County, J. E. Stephens, County Judge, Canadian, Tex.—Bids opened June 12 to build bridge, consisting of two 80-ft. steel truss spans; 5 bents of creosoted pile trestle approach on each end; C. L. Hasie, County Engr.

Bridge Construction.—State Highway Dept., Columbia, S. C.—Bids until June 22 for 3 creosoted timber bridges; one of eight 14-ft. bents, and two of three 14-ft. bents; Berkeley County, Federal Aid Project No. 63; plans, etc. from State Highway Engr.

Bridge Construction.—State Highway Dept., Columbia, S. C.—Bids until June 28 for reinforced concrete bridge over Salkehatchie River on Kline-Willston road; ten 22-ft. spans; Barnwell County, Federal Aid Project No. 117-B; plans, etc., from State Highway Engr.

Bridge Construction.—State Highway Dept., Columbia, S. C.—Bids until June 26 for following:

Union County, reinforced concrete bridge over Padgett Creek on Union-Whitmire road; four 22-ft. spans.

Union County, bridge over Tiger River on Union-Whitmire road; thirteen 22-ft. concrete spans, and 168-ft. steel span; 107,965 lbs. steel reinforcement; 168,000 lbs., structural steel; both Federal Aid Project No. 175; plans, etc., from W. B. Deneen, County Engr., Union, or State Highway Engr., Columbia.

Bridge Construction.—City, Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Bids until June 21 to build 558-ft. Phoenix Bridge and approaches over Gunpowder River; Cont. No. 57; two 210-ft. truncated bowstring truss spans; reinforced concrete pier and abutments and approaches; plans, etc., from Wm. A. Megraw, Water Engr. (Lately noted bids until June 7.)

Bridge Construction.—State Highway Comsn., Frankfort, Ky.—Bids until June 21 for following:

Carter County, Midland Trail, Grayson-Olive Hill road, over Barretts Creek; Sta. 80 plus 69; 100-ft. pony truss, steel span; 20-ft. roadway; concrete floor; asphalt surface; Federal Aid Project No. 13.

Madison County, Richmond Berea road,

over Hayes Fork at Kingston; two 20-ft. concrete T-beam spans; abutments and piers; 18-ft. roadway.

Graves County, reinforced concrete T-beam superstructures and center piers, on Mayfield-Murray road.

Stations

142 plus 30-two 20-ft. 3-in. spans, center pier

400 plus 46-two 27-ft. spans, center pier.

181 plus 57-30-ft. span.

313 plus 50-30-ft. span.

501 plus 12-30-ft. span.

648 plus 50-21-ft. span; State Aid Project No. 9, Sec. C.

Ohio County, Hartford-Owensboro road, over Barnett Creek; Sta. 281 plus 00; superstructure only; 100-ft. steel span; 15-ft. roadway; concrete floor; asphalt surfacing; State Project No. 11.

Henderson County, Louisville-Paducah road over Highland Creek; Sta. 8423-8427; sub-structure only; 100-ft. roadway; concrete floor; ten-30-ft. concrete T-beam spans on concrete pile bents; Federal Aid Project No. 51, Sec. C.

Pike County, Maho Trail at Pikeville, over Levisa Fork of Big Sandy River; channel, span, 162-ft.; two approach spans, 130-ft. each; 20-ft. roadway; concrete floor; bituminous surface; 6-ft. sidewalks each side; concrete piers on rock; abutments on creosoted piles; plans, etc. from Joe S. Boggs, State Highway Engr.

Bridge Construction.—Grant County Fiscal Court, E. E. Roland, County Clk., Williamstown, Ky.—Bids until June 24 on following:

120-ft. bridge across Fork Lick Creek, on Williamstown and Cynthiana pike.

300-ft. bridge across Eagle Creek, on Jonesville and Elliston turnpike; superstructure and sub-structure for 15-ton capacity bridge with 16-ft. roadway; reinforced concrete or steel construction; plans, etc., on file, or from Commr. Public Roads, Frankfort, Ky.

Brooms and Brushes.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until July 1 to furnish 20,000 corn brooms; 400 whisk brooms; 500 dust brushes; 1800 fitch brushes; 1200 paste brushes and 1000 stove brushes; delivery to Marine Corps, Philadelphia, Pa.; plans on file or with Depot Quartermaster, 1100 S. Broad St., Philadelphia; Sch. No. 7-1923.

Building Material.—Lewis & Thorn, St. Petersburg, Fla.—Correspondence with manufacturers of building material.

Cabinet Maker Supplies, etc.—W. F. Muecke, Macon, Ga.—To purchase all kinds of cabinet maker and upholstering supplies.

Canning Plant Equipment.—J. A. Carbell, Box 247, Heber Springs, Ark.—Catalogs and prices on mchy. and equipment for canning plant, including cans, labels, etc.

Coal.—C. H. Dowler, City Mgr., Wheeling, W. Va.—Bids until June 20 to furnish coal for use at city pump station at Slacktown for period beginning July 1, 1922, ending June 30, 1923.

Coal.—W. E. Miller, City Supt. of Schools, Knoxville, Tenn.—Bids until June 12 for coal for coming year.

Dynamite, etc.—See Hardware Supplies, etc.

Coal Chute, etc.—Constructing Quartermaster, Fort Benning, Ga.—Bids until June 20 to construct coal chute and trestle approach.

Corrugated Enclosures.—Board of Awards, Mayor Wm. F. Broening, Prest., Baltimore, Md.—Duplicate bids until June 14 at office Richard Gwinn, City Register, City Hall, to construct corrugated iron enclosures over areas at School No. 90, Washington St., and North Ave.

Crane.—S. C. Weber, 38th, Ohls and Belt R. R., Alton Park, Chattanooga, Tenn.—10 or 15 ton standard gauge crane, prefer Browning.

Crusher.—Duncan Machinery Co. (Mchy. Dealers), Dempster Bldg., 721 N. Central Ave., Box 265, Knoxville, Tenn.—Prices on 200 yd. used crusher.

Curtain Pullers (Automatic).—Stewart Theater Co., Inc., Shreveport, La.—Automatic curtain pullers for drawing split curtain, 20x20 ft., controlled from operating room of moving-picture theater.

Drags.—See Paving Equipment.

Drills and Grinders.—James P. Coleman, 106 N. 3rd St., St. Louis, Mo.—To purchase drills and grinders.

Drainage.—Beaufort County Drainage Dist. No. 10, Geo. Green, Chrmn., New Berne, N. C.—Bids until July 8 to construct 43.4 ml. drainage canals in Craven and Beaufort Counties, 984,655 cu. yds. excavation, 434 acres of right of way clearing, 14 wooden bridges; plans with B. M. Potter, Engr., New Berne.

Dredging.—United States Engr. Office, 309 Customhouse, Baltimore, Md.—Bids until July 7 to dredge Wicomico River; further information on application.

Electric Cable Repairing, etc.—Constructing Quartermaster, Room 2306, Munitions Bldg., 19th and B Sts., Washington, D. C.—Bids until June 20 to repair electric cable and street lighting system at Washington Barracks; further information on application.

Electric Fixtures.—J. B. Brower, Jr., Box 393, Cumberland, Md.—Electric fixtures for church.

Electric Fixtures.—Jonesboro Supply House, Jonesboro, Tenn.—To correspond with mfrs. of electric fixtures for churches and public buildings.

Electric Light Plant Equipment.—W. L. Lynn, Secy., West Union Machine & Supply Co., West Union, W. Va.—Immediate information and prices on complete equipment for electric light unit, including 100 K. W. A. C. generator.

Electrical Shop Equipment.—L. W. Spaulding, 220 E. 11th St., Kansas City, Mo.—To purchase equipment for light shop work and radio construction.

Elevator (Passenger).—Henry Moore, Jr., 433 State National Bank Bldg., Texarkana, Ark.—To correspond with mfrs. of passenger elevators to be installed in 2-story residence; for one person only.

Farm Machinery.—See Hardware Supplies, etc.

Engine.—Duncan Machinery Co. (Mchy. Dealers), Dempster Bldg., 721 N. Central Ave., Knoxville, Tenn.—Prices on 12 to 15 H. P. second-hand vertical or horizontal engine, state price and condition.

Engine.—Sam'l T. Williams, 223 N. Calvert St., Baltimore, Md.—250 H. P. Corliss or similar type steam engine.

Fence.—Treasury Dept., Supvg. Archt.'s office, Washington, D. C.—Bids until June 22 to construct new fence at Quarantine Station, Curtis Bay, Baltimore, Md.; plans on file.

Fertilizers.—J. L. T. Shown, Secy., Campbell, County Hardware Co., Jacksboro, Tenn.—Prices on fertilizer.

Fire Escapes, etc.—Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Bids until June 21 for fire escapes and alterations to Schools Nos. 1, 3, 5, 8, 15, 23, 24, 25, 28, 30, 40, 42, 73, 81, 92, 106, 106 branch, 110, Bank Street, Highlandtown and Canton No. 1; also No. 64, Garrison and Main Aves.; Richard Gwinn, City Register; J. F. Crowther, Inspector of Buildings.

Fire Escapes.—High Point Machine Works,

High Point, N. C.—To correspond with mfrs. of fire escapes, for 4 story bldg.

Flooring.—Dr. S. E. McCotter, Bayboro, N. C.—Hardwood flooring for residence, 48x36 ft.

Flour Mill Equipment.—J. L. Poole, Box 333, Princeton, Ky.—100 bbl. flour mill and all equipment; correspond with mfrs. or dealer.

Furniture (Church).—J. B. Brower, Jr., Box 393, Cumberland, Md.—Pulpit furniture, pews, chairs and tables in walnut or other dark finish.

Galvanized Wire.—R. J. Crozier Co., Fuller Bldg., 10 S. 18th St., Philadelphia, Pa.—400 gross tons of galvanized and black annealed wire shorts, gauges 6 to 20, minimums lengths of 40 ft., packed in coils for export to the Orient; state prices, condition, loading and inspection point, inspection when and by whom; quotations f. a. s., Mobile, Jacksonville, New Orleans, New York, Seattle, San Francisco, Philadelphia, and Boston; can ship through any of these ports to far East.

Gasoline, etc.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until June 21 to furnish gasoline, kerosene and fuel oil during period of July 1 to Sept. 30, 1922 at Portsmouth, N. H., New York, N. Y., Dover, N. J., Philadelphia, Pa., Annapolis, Md., Washington, D. C., Quantico, Va., Yorktown, Va., Norfolk, Va., Charleston, S. C., and Parris Island, S. C.; information on application; Sch. No. 10-1923.

Generator (Belted).—Lewter F. Hobbs, 115 E. 12th St., Norfolk, Va.—Dealers prices on belted generator, 175 to 200 K. W., 3 phase, 60 cycle, 440 volts, A. C.; good second-hand condition; give full description, etc.

Generators.—Navy Dept., Bureau of Supplies and Accounts, Washington, D. C.—Bids opened June 13 to deliver generators to naval air station, Anacostia, D. C.; plans on file.

Gin Outfit.—Geo. I. Warner, McBean, Ga.—Prices on second-hand 2 stand gin outfit.

Graders.—See Paving Equipment.

Granite.—Duval County Comms., care of Frank Brown, Clk., Jacksonville, Fla.—Bids until June 20 to furnish 150 tons of 14-in. and 25 tons of 24-in. Carolina granite; delivery Jacksonville.

Hangars.—Constructing Quartermaster, Fortress Monroe, Va.—Bids until June 20 to construct 2 steel hangars, 100x200-ft. at Langley Field, Va.; further information on application.

Hangars.—Constructing Quartermaster, Room 2306, Munitions Bldg., 19th and B Sts., Washington, D. C.—Bids until June 23 to erect 2 hangars at Bolling Field, D. C.; further information on application.

Hangars.—Constructing Quartermaster, Fort Benjamin Harrison, Ind.—Bids until June 23 to erect 2 steel hangars; further information on application.

Hardware Supplies, etc.—J. L. T. Shown, Secy., Campbell County Hardware Co., Jacksboro, Tenn.—Prices on supplies for hardware company including, farm mchy.; fertilizers; cement; tile; mine supplies; powder; dynamite; seeds etc.

Heating Plant.—J. D. Brower, Jr., Box 393, Cumberland, Md.—Heating plant for church 40x50 ft.

Heating Plant (Steam).—Treasury Dept., Jas. A. Wetmore, Act. Supv. Archt., Washington, D. C.—Bids until June 19 for steam-heating system, etc., Quarantine Station, Baltimore, Md.; plans and specifications from Custodian at site and office Supervising Archt.

Heating System, etc.—Constructing Quartermaster, Aberdeen Proving Ground, Aberdeen, Md.—Bids until June 19 for following construction at airship field; install heating system, septic tank erect mooring mast, steel stairway and concrete floor; information on application.

Heating and Ventilating.—Ed Marzer, Warrensburg, Mo.—Heating and ventilating for addition to building at Central Missouri State Teachers College, 75x115x64 ft.

Holst (Steam).—Marlbrook Lime Co., Roanoke, Va.—Second-hand D. D. D. C. steam holst, 40 H. P. with out boiler, suitable for drag line work.

Ice Cream Making Equipment.—DeLoach Quick Ice Machine Co., 1205 Pulaski St., Columbia, S. C.—To correspond with mfrs. of ice cream making mchy.

Ice Machine.—Henry N. Brawner, Jr., care of John Albert Hunter, Archt., 3101 14th St., N. W., Washington, D. C.—Data and prices on small ice machine.

Ice Machinery.—W. G. Lancaster, Laurens, S. C.—To correspond with mfrs. of ice mchy., equip plant to supply from 5000 to 10,000 persons.

Ice Making Machinery.—Dixon Fish Co., Sarasota, Fla.—To correspond with mfrs. of ice making mchy.

Iron and Brass Work.—Ed Marzer, Warrensburg, Mo.—Ornamental iron and brass work for addition to building at Central Missouri State Teachers College.

Iron or Soft Machine Steel.—East Carolina Railway, Tarboro, N. C.—To purchase carload of mixed sizes of bars, rounds and bats.

Jail Equipment, etc.—J. Logan Lackey, Chrmn., McDowell County Comms., Marion, N. C.—Bids until July 3 for jail equipment and work for McDowell Courthouse; plans with Erle G. Stillwell, Archt., Hendersonville, N. C.

Labels.—See Canning Plant Equipment.

Lasts and Patterns (Shoe).—Florida Shoe Mfg. Co., Lakeland, Fla.—Prices and information on lasts and pattern for shoe plant.

Lathe.—Schwing & Shingle Co., Plaquemine, La.—Second-hand lathe with swing 24-in. diam. and 16 ft. long; state price and full description.

Lathe.—Cunningham Machine Works, G. F. Cunningham, Treas., Youree Hotel, Shreveport, La.—36-in. lathe.

Laundry Machinery, etc.—J. A. Carbell, Box 247, Heber Springs, Ark.—Catalogs and prices on mchy. and equipment for small laundry.

Leather, etc. (Shoe).—Florida Shoe Mfg. Co., Lakeland, Fla.—Prices and information on upper leather sides and fine calf leather, sole leather, insole leather, counters box toes, steel shanks for shoe plant.

Leather Backs.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids opened June 13 to furnish 20,000 sq. ft. leather backs, russet, 7 to 8 oz.; delivery 1100 S. Broad St., Philadelphia, Pa.; Sch. 403; plans on file.

Levee.—Yazoo-Mississippi Delta Levee Comms., Clarksdale, Miss.—Bids until June 20 to furnish materials, equipment and labor placing on river side slope of levee, in four different localities, approx. 140,000 sq. yds. plain concrete, slab 3-in. thick; also build new levee on sections 36 and 37, approx. 215,000 cu. yds.; restoring part of levee section 36 as a spur levee, approx. 6000 cu. yds.; information on application to W. L. Head, Chief Engr.

Levee Outfits, etc.—Mississippi Levee Comms., Greenville, Miss.—Bids until June 20

Lighting, Wiring, etc.—Treasury Dept.,

to furnish wheeled scrapers, levee outfits for day work on levee; 5 to 6 separate outfits of from 18 to 25 teams for season for repair and improvement work; further information on application.

Supvg. Archt.'s Office, Washington, D. C.—Bids until June 16 for conduit wiring changes, lighting fixtures, etc. in U. S. Court House and Postoffice (old) at Columbia, S. C.; plans on file or with Custodian at Columbia.

Lighting System.—Constructing Quartermaster, Room 2306, Munitions Bldg., Washington, D. C.—Bids until June 13 for repairs to electric system at Fort Myer, Va.; further information on application.

Locomotive.—Suncrest Lumber Co., Sunburst, N. C.—25-ton flat bottom type A. Climax locomotive, 36-in. gauge; state age, shop number, steam working pressure, general condition of boiler, cylinders, gears, frames and all other parts of engine, also thickness of tires; if possible would trade an 18 ton locomotive same type; lowest cash price f. o. b. shipping point.

Locomotive.—Cavanal Coal Co., 436 Ridge Bldg., Kansas City, Mo.—40 to 50 ton switch locomotive; delivery LeFlore County, Okla.

Lumber.—Bd. of Awards, Richard Gwinn, City Register, Baltimore, Md.—Bids until June 21 to furnish and deliver lumber for sheathing, braces, and rangers; plans on file; A. E. Christhill, Highway Engr., Room 8, City Hall.

Machines (Shoe).—Florida Shoe Mfg. Co., Lakeland, Fla.—Information and prices on vamping, sewing, upper, inseaming, outsole, rounding, chennelling, and McKay sewing machines for shoe plant.

Machine Shop Equipment.—Werner & Knaveley Appliance Mfg. Co., 4357 Delor St., St. Louis, Mo.—12, 14 or 16-in. lathe, drill press, small furnace for hardening steel, buffing machine and welding outfit.

Machine Shop Equipment.—W. L. Lynn, Secy., West Union Machine & Supply Co., West Union, W. Va.—Prices on 24x14 lathe, 20-in. shaper, power hack saw, etc.

Machinery Equipment for Dept. of Education.—John H. Roche, Secy., Board of School Comms., Madison and Lafayette Aves., Baltimore, Md.—Bids until June 21, machinery equipment for Dept. of Education; plans on file.

Match Machinery.—Sanford Sash & Blind Co., Sanford, N. C.—Data and prices on match mchy., interested in mfr. of matches in order to use scrap lumber.

Mechanical Equipment, etc.—Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids until July 11 to construct, including mechanical equipment of U. S. Post Office, Gilmer, Tex.; plans on file or with Custodian at Gilmer.

Millwork.—Ed Marzer, Warrensburg, Mo.—Millwork for addition to building at Central Missouri State Teachers College.

Mine Supplies.—See Hardware Supplies, etc.

Miscellaneous Supplies.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until June 19 to furnish: special bronze; copper; brass; valves; manila rope; platform scale; brushes; paper cups; soap; calcium carbide; asphaltum; linseed oil; varnish; black enamel; paint drier; metallic zinc and kerosene. Blank forms and information (Circular 1483) on application to offices of: Panama Canal; Asst. Purchasing Agts. at 24 State St., New York, 611 Gravier St., New Orleans, La., U. S. Engr. Offices throughout country.

Musical Instruments.—J. S. Wilson, Bailey, N. C.—To correspond with mfrs. of musical instruments.

Oil Burning System.—Constructing Quar-

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

termaster, Fort Sam Houston, Tex.—Bids until June 23 for oil burning system storage tanks and oil pipe line at Fort Sam Houston; further information on application.

Painting, Etc.—Treasury Dept., J. A. Wetmore, Act. Supervising Archt., Washington, D. C.—Bids until July 6 for exterior and interior painting, finishing, etc., buildings, U. S. Veterans Hospital, Perryville, Md.; specifications from office Supervising Archt.

Papier Mache Products.—C. E. McClain, Box 212, San Antonio, Tex.—To correspond with mfrs. of papier mache articles, want especially papier mache hollow ball, 6 or 8-in. diam.

Paving.—City, S. D. Wheeler, Mayor, Catlettsburg, Ky.—Bids until June 19 to grade and pave with bituminous macadam following: Louisa road from 36th St. to south corporate limits; Walnut St. and 25th Sts.; plans, etc., from W. E. Grace, City Clk.

Paving.—City, Mat Miser, Commr. of Streets and Sewers, Huntington, W. Va.—Bids until June 21 to grade, curb and pave following: 29th, 15th, 25th, 13th Sts.; plans, etc., from A. B. Maupin, City Engr.

Paving.—City, Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Bids until June 21 for following: grade, pave and curb streets in Cont. No. 218-OANA, sheet asphalt; Cont. No. 219-OCOA, cement concrete; Cont. No. 220-NA, sheet asphalt; plans, etc., from R. Keith Compton, Chmn. Paving Comsn.; H. G. Perring, Ch. Engr.

Paving.—City, Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Bids until June 21 to grade and pave with cement concrete, footways in Conts. Nos. 21, 22, 23; plans, etc., from A. E. Christhill, Highways Engr.

Paving.—City, J. P. Smith, Clk., Quincy, Fla.—Bids until July 18, to pave certain streets with necessary curb and gutters; 21,800 sq. yds. pavement; 16,075 cu. ft. concrete curb; brick, concrete, macadam, sheet asphalt, asphaltic concrete; plans, etc., on file or from J. B. McCrary Engineering Co., Engr., Atlanta, Ga.

Paving.—City, Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Bids until June 21, to grade and pave with cement concrete, Alleys in Conts. Nos. 86 and 87; plans, etc., on file; A. E. Christhill, Highways Engr.

Paving Equipment.—City, Jas. G. Reed, Mayor, Kirksville, Mo.—Paving equipment, including asphalt and brick.

Paving.—Town, A. Summerlin, Mayor, Winter Haven, Fla.—Bids July 6 to construct 120,000 sq. yds. street paving with necessary curb, gutter and drainage; plans, etc., from H. D. Hinderliter, Town Clk., or H. S. Jaudon Engineering Co., Engr., Elberton, Ga. (Lately noted until June 6.)

Paving.—City, Streets and Drains Comm., Augusta, Ga.—Bids opened June 10 to pave between tracks and 3 ft. on each side, on Telfair St. from 8th to 9th Sts.; plans, etc., from W. H. Wise, City Engr., and Commr. Public Works.

Paving.—Citizens Committee, Section 4, W. Blum, Prest., 215 Elm St., Chevy Chase, Md.—Bids opened June 14 to resurface 3½ mi. streets in above section; plans, etc., on file.

Paving.—Town, I. N. Kennedy, Mayor, Eustis, Fla.—Bids until July 10 for 85,000 sq. yds. street paving with necessary drainage, curbs and gutters; plans, etc., from H. S. Jaudon Engineering Co., Engr., Elberton, Ga.

Paving.—City, Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Bids until June 21 to pave with sheet asphalt, Calvert St. bridge over Pennsylvania R. R. tracks; plans, etc., on file; A. E. Christhill, Highways, Engr.

Paving Equipment.—Fairfield County Highway Comsn., Township No. 11, B. H. Tarborough, Chmn., Winnsboro, S. C.—Paving equipment including graders, scrapers, drags.

Paving.—City, A. J. Hawkins, City Engr., Birmingham, Ala.—Bids opened June 6 for sheet asphalt, bitulithic and concrete gutter paving, granite block and brick track paving in Ordinance No. 202-D; grade, macadamize sidewalk and combined curb and gutter paving in Ordinance No. 203-D; also asphaltic concrete, brick gutter and brick track paving, Ordinance No. 204-D; plans, etc. on file.

Paving.—City, Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Bids opened June 14 to grade and pave with cement concrete, footways in Conts. Nos. 17, 18, 19, 20; plans, etc. from A. E. Christhill, Highways Engr.

Planer.—Cunningham Machine Works, G. F. Cunningham, Treas., Youree Hotel, Shreveport, La.—36-in. open side planer.

Planer and Matcher.—Leroy S. Davidson & Co., Camden, S. C.—To purchase second-hand high speed planer and matcher complete, about 6x14, Berlin preferred.

Plastering.—Ed. Marxer, Warrensburg, Mo.—Plastering for addition to building at Central Missouri State Teachers College.

Plumbing.—J. B. Brower, Jr., Box 393, Cumberland, Md.—Plumbing for church.

Printing Press.—Interstate Equipment Corp. (Mchy. Dealers), Box 978, Norfolk, Va.—F. E. Hooper two color printing press, knocker feed, 17x27 preferred, could use 24x44.

Pumps, etc.—Sam'l. T. Williams, 223 N. Calvert St., Baltimore, Md.—Pumps, heaters, etc. (Machinery Dealer.)

Punching and Shearing Machine, etc.—Mississippi River Comsn., 1st and 2nd Dists., Customhouse, Memphis, Tenn.—Bids until June 15 to furnish and deliver one power punching and shearing machine, one electric induction motor with starting compensator; information on application.

Reflector (Flash Light).—Bull Grip, Inc., Paul R. Puckett, Prest., Atlanta, Ga.—Hand flash light reflector 1-9/16-in. diam. at large end tapering to small threaded opening; reflector 1-in. in depth.

Road Construction.—Kanawha County Commrs. Court, R. N. Moulton, County Clk., Charleston, W. Va.—Bids until July 1 to grade, pave and construct retaining walls on sections of road in Cabin Creek Dist.: No. 4—Montgomery, West 2.72 mi.; No. 5—½ mi. between Handley and Pratt; No. 5—Pratt, West 2.40 mi.; No. 6—East Bank, West 2.63.

Road Construction.—Wise County, W. D. Paschal, County Judge, Decatur, Tex.—Bids opened June 12 for 20.7 mi. Meridian Highway from Decatur to Montague County line; 14,420.4 cu. yds. clay surfacing; 140,989 lbs. reinforced steel; Lloyd W. Taylor, County Engr.

Road Construction.—State Highway Comsn., Frankfort, Ky.—Bids until June 21 for following:

Harrison County, 9.6 mi. Cynthiana-Falmouth road, from Pendleton County line southward; State Project No. 21, Section E; bituminous surface treatment covered with stone chips or pea gravel; 17,000 gals. heavy oil or medium tar; 676 tons stone chips or pea gravel.

Cumberland County, 7.52 mi. Burkesville-Edmonton road, from Sta. 133 to Sta. 434; Sta. 530 to Sta. 548; 635 to 714; State Project No. 40; Section C; crown and shape including shoulders, cover with creek gravel; 17,000 cu. yds. creek gravel.

Todd County, 4.34 mi. Elkton-Hopkinsville

road, from Fairview to Elkton; State Project No. 1; Section J; bituminous surface treatment, cover with stone chips or pea gravel; 10,000 gals. medium oil, or medium tar; 350 tons stone chips or pea gravel.

Jefferson County, 17.4 mi. Louisville-Taylorsville road, from city limits of Louisville to Spencer County line; State Project No. 18, Section A; bituminous surface treatment, cover with stone chips or pea gravel; 38,657 gals. heavy oil or medium tar; 1100 tons stone chips or pea gravel.

Bourbon County, 12 mi. Paris-Mt. Sterling road, from city limits of Paris to Montgomery County line; State Project No. 32, Section A; bituminous surface treatment, cover with stone chips or pea gravel; 21,000 gals. medium oil; 845 tons stone chips or pea gravel.

Shelby County, 5.25 mi. Shelbyville-Eminence road, from city limits of Eminence southward; State Project No. 46, Section B and C; bituminous surface treatment, cover with stone chips or pea gravel; 10,778 gals. heavy oil or medium tar; 432 tons stone chips or pea gravel.

Nicholas County, 2.24 mi. Carlisle-Owingsville road, from city limits of Carlisle to Paris-Mayeville road; State Project No. 61, Section A.

Nicholas County, 4.88 mi. Lexington-Maysville road from Bourbon County line to Carlisle-Owingsville road; State Project No. 20, Section J; bituminous surface treatment, cover with stone chips or pea gravel; 16,710 gals. light oil or light tar, or heavy oil or medium tar; 700 tons stone chips or pea gravel.

Bell County, 12 mi. 14-ft. wide. Pineville-Middlesboro road; State Project No. 5, Section S.

Bell County, 1 mi. 14-ft. wide Middlesboro-Cumberland road; State Project No. 38, Section A; bituminous surface treatment; stone chips or pea gravel covering; 38,000 gals. light tar or light oil; 570 tons stone chips or pea gravel.

Scott County, 3.44 mi. Covington-Lexington road from city limits of Georgetown to Fayette County line; State Project No. 5, Section G; bituminous surface treatment; stone chips or pea gravel covering; 8000 gals. medium tar or heavy oil; 325 tons stone chips or pea gravel; plans, etc., from Joe S. Boggs, State Highway Engr., Old Capitol Bldg., Frankfort.

Road Construction.—Palm Beach County Commrs., Hector Harris, Chmn., West Palm Beach, Fla.—Bids opened June 10 for 3.60 mi. on Road A, Special Road and Bridge Dist. No. 8; hard surface paving 9-ft. wide; culverts and sand shoulders; extend from Wilson Bridge to Dixie Highway; plans, etc. from R. F. Goodman, County Engr.

Road Construction.—St. Johns County Commrs., Obe P. Goode, Clk., St. Augustine, Fla.—Bids until June 28 on following:

4.9 mi. Anastasia Island road, from east end of Toll Bridge across Matanzas River to St. Augustine Beach.

4.2 mi. from Forks of this Road.

5.5 mi. from east end of Toll Bridge to Crescent Beach.

1½ mi. from Hastings to Putnam County line, toward Federal Point road.

2.4 mi. Horn road, from New Augustine to Dixie Highway in North City.

2.3 mi. Lewis Speedway, from Horn Road to St. Augustine golf links.

6¼ mi. from Hastings to Putnam County line; plans, etc., on file.

Road Construction.—State Highway Comsn., Frankfort, Ky.—Bids until June 21 for following:

Henderson County, 2.8 mi. Louisville-Paducah road, from Corydon to Union

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County line; State Project No. 8, Sec. B, or Federal Aid Project No. 51, Sec. B; grade, construct drainage structures

Laurel County, 5.5 mi. London-Mt. Vernon road, from Rockcastle to Federal Aid Project No. 29-B; State Project No. 5, Sec. B, or Federal Aid Project No. 29, Sec. C; grade and construct drainage structures.

Harlan County, 5.9 mi. Harlan-Pineville road, from Loyal, Sta. 165 plus 00, to Wallins, Sta., 477 plus 50; State Project No. 6, Sec. A; grade and construct drainage structures.

Christian County, 1 mi. Hopkinsville-Elkton road, from east corporate limits of Hopkinsville to Western Kentucky Hospital; State Project No. 1, Sec. B; 18-ft. rock asphalt, bituminous concrete, Topeka mix or reinforced cement concrete surface; grade and construct drainage structures.

Caldwell County, 14 mi. Princeton-Marion road, from Princeton to Crittenden County line; State Project No. 10, Sec. A; grade and construct drainage structures.

Estill County, 4.1 mi. Irvine-Richmond road, from Rice's station to Madison County line; State Project No. 29, Sec. A; 14-ft. waterbound macadam surface or waterbound macadam surface treated, or bituminous macadam penetration; grade and construct drainage structures.

Rowan County, 8.8 mi. Morehead-Grayson road, from northeast corporate limits of Morehead to Carter County line; State Project No. 47, Sec. B, or Federal Aid Project No. 67; grade and construct drainage structures.

Barren County, 7 mi. from Glasgow-South road, from Glasgow to property of A. Y. Ellis; State Project No. 3, Sec. B, or Federal Aid Project No. 28, Sec. B; 16-ft. surface with waterbound macadam surface treated, bituminous macadam penetration, or rock asphalt; grade and construct drainage structures.

Carter County, 4 mi. Olive Hill-Grayson road; State Project No. 47, or Federal Aid Project No. 13, Sec. B and C; shaping approaches; constructing substructures for spans.

Scott County, 3.4 mi. Georgetown-Frankfort road, beginning at Franklin County line; State Project No. 17, Sec. G; 14-ft. waterbound macadam surface; grade and construct drainage structures; plans, etc., from Joe S. Boggs, State Highway Engr.

Road Construction.—Dallas County, Chas. E. Gross, Auditor, Dallas, Tex.—Bids until June 19 to construct following:

Maple Ave. road, 2000 cu. yds., earth overhaul; 8000 sq. yds. scarifying and reshaping. Sachse road, 10,000 cu. yds. earth overhaul; 15,000 sq. yds. scarifying and reshaping.

Midway Church road, 10,000 cu. yds. earth overhaul; 10,000 cu. yds. scarifying and reshaping.

Westmoreland road, 15,000 cu. yds. earth overhaul; 10,000 sq. yds. scarifying and reshaping; all hard surface; plans, etc., from Nagle-Witt-Rollins Engineering Co., Engr., Dallas, Tex.

Road Construction.—Marion County Court, Lee, N. Satterfield, Clk., Fairmont, W. Va.—Bids until July 6 to grade, construct drainage structures and pavement on 7.3 mi. streets and roads in Union Dist.; 40,000 cu. yds. grading; 34,000 sq. yds. brick pavement; 46,000 sq. yds. plain concrete pavement; plans, etc., from B. H. Palmer, Dist., Road Engr.

Road Construction.—Lamar County, W. J. Hutchinson, County Judge, Paris, Tex.—Bids until June 17 for following:

Federal Aid Project No. 296; 37,397.78 sq. yds. concrete pavement; on Highway No. 19.

Federal Aid Project No. 295; 56,320 sq. yds. concrete pavement on Highway No. 5; plans, etc., from W. M. Fooshee, County Engr.

Road Construction.—Carroll County Court, Carrollton, Mo.—Bids until June 15 to grade and construct concrete culverts on State road near city; State Project No. 20.87. Address County Clk.

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids opened June 8 for 6.357 mi. State road from Unionville eastward; grade, construct drainage structures, wooden guard rails, etc.; State Aid Project No. 20.167; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo.

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids opened June 8 for 2.91 mi. State road from Windsor, southwestward; grade, construct drainage structures, and wooden guard rails; Federal Aid Project No. 133 B; S. M. Rudder, Ilgenfritz Bldg., Sedalla, Mo.

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids opened June 9 for 7.396 mi. State road from Cassville north-west and southwest; gravel surface, 12-ft. concrete pavement; grade, construct drainage structures; guard rails, etc.; Federal Aid Project No. 124; H. P. Moberly, Div. Engr., Woodruff Bldg., Springfield, Mo.

Road Construction.—Fort Bend County, C. D. Myers, County Judge, Richmond, Tex.—Bids until June 26 to gravel and surface 13 mi. State Highway No. 36, from Rosenberg to Austin County line; 103,277 gals. asphalt oil; 4,303.2 cu. yds. crushed limestone; plans, etc., on file, from Nagle-Witt-Rollins Engineering Co., Engr., Wharton, Tex., and State Highway Dept., Austin, Tex.

Road Construction.—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until June 20 for following:

Carroll County, 1.24 mi. State Highway through Hampstead; Cont. No. CL-28; concrete.

Caroline County, 3 mi. State Highway from State road 1 mi. north Denton, toward Burrs-ville; Contr. No. CO-28.

Worcester County, 4.5 mi. State Highway from Pocomoke toward Stockton; Cont. No. WO-17; concrete.

Talbot County, 2.42 mi. State Highway from end Cont. T-14 at St. Michaels to Oak Creek; Cont. No. T-12; concrete.

St. Marys County, 3.5 mi. State Highway from Helen to Chaptico; Cont. No. SM-19; gravel; plans, etc. on file.

Road Oiling Equipment.—Gilbert Gilchrist, County Engr., Tom Green County, San Angelo, Tex.—Road oiling equipment for 15.44 mi. road construction.

Road Roller.—Powell Paving & Constructing Co., Columbia, S. C.—8 to 10 ton tandem road roller, second-hand.

Roller (Steam, Gasoline).—Duncan Machinery Co. (Mchy. Dealers), Dempster Bldg., 721 N. Central Ave., Box 265, Knoxville, Tenn.—Prices on 10 ton, 3 wheel, gasoline and steam roller, one of each.

Roller (Tandem).—Lewter F. Hobbs, 115 E. 12th St., Norfolk, Va.—To purchase Iroquois 2½ ton tandem roller.

Roofing, etc.—Davis Foundry & Machine Works, Rome, Ga.—65 squares of corrugated galvanized iron roofing and siding; also about same amount of painted corrugated roofing and siding; used material if in good condition.

Rubber Hose.—Mississippi River Comsn., 1st and 2nd Dists., Custom House, Memphis, Tenn.—Bids until July 1 to furnish and deliver rubber hose; information on application.

Rubber Hose.—Mississippi River Comsn., 1st and 2nd Dists., Customhouse, Memphis, Tenn.—Bids until July 1 to furnish and deliver rubber hose; further information on

application.

Seating.—J. B. Brower, Jr., Box 393, Cumberland, Md.—Pews, chairs, etc. (See Furniture (Church).)

Seating.—J. A. Cave, Secy., School Board, Garrett, Tex.—600 auditorium chairs and 200 school desks.

Seating.—F. G. Marble, Leland, Miss.—Church pews.

Seeds, etc.—See Hardware Supplies, etc.

Scrapers.—See Paving Equipment.

Sewer Construction.—City, Chas. H. Brown, Mayor, Tampa, Fla.—Bids until June 13 to construct sanitary sewers in Euclid Ave., Clark St., etc., about 2425 lin. ft. 6-in. terra cotta pipe; 50 6x4-in. Y's; 12 manholes; plans on file at office of City Clerk.

Sewer Construction.—City, E. H. Miles, Clk., Port Arthur, Texas.—Bids until June 14 for equipment and constructing sanitary sewer improvements, as follows: laying 30,000 lin. ft. vitrified clay pipe; 84 manholes; 18 flush tanks; plans on file at office of Nagle Witt Rollins Engineering Co., Port Arthur, Texas.

Sewage Disposal Plant.—Board of Managers, Crownsville State Hospital, Wm. L. Marbury, Prest., Crownsville, Md.—Bids until June 21 for constructing sewage disposal plant; plans and specifications on file at office of Ch. Engr. Md. State Dept. of Health, 16 W. Saratoga St., Baltimore, Md.

Sewer Castings, etc.—Dept. Public Improvements, Richard Gwinn, City Register, Baltimore, Md.—Bids until June 21 to furnish and deliver 125,000 lbs. manhole, sewer inlet and similar iron castings; plans on file; A. E. Christliff, Highways Engr., Room 8, City Hall.

Sewer Construction.—City of Quincy, Fla., W. E. Shelfer, Prest., Council.—Bids until July 18 to construct storm and sanitary sewers and extensions; 5.32-lin. ft. storm sewers; 4 manholes; 42 catch basins; 60 lin. ft. cast iron pipe; plans at office of J. P. Smith, Clk., or at office of J. B. McCrary Engineering Corp., Atlanta, Ga., Engr.

Sewer Construction.—City of Muskogee, Okla., W. W. Gilbert, Clk.—Bids until June 27 to construct sanitary sewer system in Dists. No. 89 and 88; 8-in. vitrified sewer pipe; plans on file at office of City Clerk and City Engr.

Sewer Construction.—Comms. of Sewerage of Louisville, Ky., Geo. T. Wood, Chrmn.—Bids until June 23 for following sewer construction; approx. quantities for Speed Ave. sewer and drain: For drain, 825 lin. ft. 51-in., 837 lin. ft. 48-in., 496 lin. ft. 45-in., 194 lin. ft. 24-in., 218 lin. ft. 21-in., 255 lin. ft. 15-in.; For sewer, 2158 lin. ft. 12-in., 667 lin. ft. 8-in.; For 44th St. and Parker Ave. Sewer; 1780 lin. ft. 45-in., 310 lin. ft. 39-in., 30 lin. ft. 36-in., 690 lin. ft. 30-in., 240 lin. ft. 18-in.; proposals invited for alternate types of sewer barrel construction; drawings, etc., on file at office of Comsn., 417 W. Main St.

Sewer Construction.—Board of Comms., Sewer Improvement Dist. No. 1, Warren, Ark.—Bids until June 27 to construct sanitary sewer system; work consists of approx. 11 mi. of 8 to 12-in. sewers, 125 manholes, 25 flush tanks and 2 disposal tanks; plans on file at office of Frank L. Wilcox, Chemical Bldg., St. Louis, Mo., Engr.

Sewer Construction.—Town of Eustis, Fla., I. N. Kennedy, Mayor.—Bids until July 10 for furnishing all material, equipment and labor for construction of sanitary sewer system; approx. 3 mi. of pipe sewer, from 8 to 12-in. in diam. and one disposal plant; plans and specifications from H. S. Jaudon Engineering Co., Elberton, Ga., Engrs., and at office of J. R. Ashmore, Clk.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Sewer Construction.—City, Lonnie Jackson, Mayor, Central City, Ky.—Bids until May 15 to construct sewer work: 100 ft. of 18-in. tile; 720 ft. 12-in. tile; 1685 ft. of 10-in. tile; 4821 ft. 8-in. tile; 280 house and street connections; 21 manholes; 4490 cu. yds. excavation; plans on file at office of City Clk.

Sheet Metal.—W. G. Taylor Construction Co., Leesburg, Fla.—Prices on all lines of sheet metal.

Signal (Radio) Apparatus.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids opened June 16 to furnish batteries, hydrometers, binding posts, condensers, coils, mountings, switches, transformers, resistances and detector sets; delivery to Marine Barracks, Quantico, Va.; plans on file; Sch. 406.

Sodium Aluminate.—Gray Concrete Co., Thomasville, N. C.—To correspond with mfrs. of sodium aluminate.

Steam Heating System.—Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids until June 19 for steam heating system, etc., for U. S. Quarantine Station, Baltimore, Md.; plans on file or with Custodian at Station.

Steel Rods.—Fidelity Can Co., 610 S. Carroll St., Baltimore, Md.—Rods for hand sprayers, ¼-in. diam., threaded on each end, 12 and 15½-in. long; made of cold rolled steel; also nuts to fit rods.

Stoves (Fireless).—L. W. Spaulding, 220 E. 11th St., Kansas City, Mo.—To purchase best lamp socket fireless stove.

Street Paving Equipment.—City of Mexico, Mo.—Purchase additional equipment for street paving, including tractor. Address The Mayor.

Tanks (Water).—Duncan Machinery Co., Dempster Bldg., 721 N. Central Ave., Knoxville, Tenn.—Jobbers prices on new and second-hand 10,000 to 20,000 gal. open water tank.

Tin Containers.—J. S. Wilson, Bailey, N. C.—To correspond with mfrs. of tin containers.

Water and Sewer System.—City, A. N. Linville, Mayor, Kernersville, N. C.—Bids until July 11 to construct and equip complete water and sanitary sewer system; plans and specifications on file at office of O. L. Joyner, Clk., or office of Carolina Engineering Co., Wilmington, N. C., Engrs.

Water Works.—City of Childress, Tex., J. E. Baker, Secy.—Bids until June 15 to furnish material, labor and equipment for complete construction of following items: Item No. 1, Earth dam, spillway and intake structure; 241,000 cu. yds. earth embankment, 40,000 cu. yds. excavation, 8000 cu. yds. Portland cement, concrete, 27,000 sq. yds. pavement; Item No. 2 Reservoir and Pipe Lines, 3600 cu. yds. excavation and fill, 2000 sq. yds. pavement, 32,000 lin. ft. 14-in. cast iron pipe, 24,000 lin. ft. 6-in. cast iron pipe, 9000 lin. ft. 2-in. wrought iron pipe, 24 fire hydrants; Item No. 3, Filter Plant: 1 pump and filter house, one 1,000,000 gal. filter, 1 centrifugal pump, 1 internal combustion engine; plans and specification on file at office of R. G. Carraway Co., Engr., Childress, Texas.

Water Works.—Town of Winter Garden, Fla., R. B. Haddon, Mayor.—Bids until June 15 for construction of water works improvements as follows: 1000 lin. ft. 8-in. C. I. bell and spigot pipe; 7000 lin. ft. 6-in. C. I. Bell and spigot pipe laid; 7 tons C. I. specials; 7000 lin. ft. 1½ gal. iron pipe; 23 hydrants; 5 eight in HE gate valves and boxes; 12 six in. HE gate valves and boxes; 13 one and one half-in. scwd. valves and boxes; lowering 2 concrete pits approx. 15 ft. each, including steel caissons, and all necessary

concrete work; 2500 G. P. M 250-in. head vertical motors; 50 H. P. motors and centrifugal pumps, including all hydraulic connections, shafts, foundations, supports, electrical connections installed complete; plans on file at office of S. C. Carmack, Town Clk.

Water Works.—Town of Kings Mountain, N. C., Geo. E. Lovell, Clk.—Invites bids for construction of 1,000,000 gal. covered reservoir, reinforced concrete; alternate bids on two 500,000 gal. steel water towers and tanks; enlargement of pumping station; installation of air lift, with 2 compressors and 2 electric motors, with necessary pipings and connections; plans on file at office of Town Clerk.

Water and Power Plant Improvements.—City of Quincy, Fla., J. P. Smith, Clk.—Bids until July 18 for equipment delivered F. O. B. cars Quincy; uniflow engine for direct connection to 210 K. V. A., 225 R. P. M., or 312 K. V. A., 200 R. P. M., alternate 120 lbs. steam pressure; 210 K. V. A. generator, 225 R. P. M. or 312 K. V. A., 200 R. P. M., 2 phase 60 cycle 2300 volts direct connected to engine; 3 panel switchboard; 2 centrifugal pumps and motors, 1500 gal. per minute each 190 ft. head; 500 H. P. feed pump and heater; motor driven air compressor 600 cu. ft.; condenser; 200 H. P., 125 lbs. return tubular boiler; unloading, hauling setting and starting of above equipment, furnishing material for building foundation, etc., constructing 200,000 gal. reservoir; furnish labor and equipment and install approx. 4000 ft. of 8 in. and 2000 ft. of 6-in. Class B cast iron pipe, 15 steamer nozzle hydrants, four 8 in. and four 6 in. valves and boxes and special castings; plans with City Clk. or J. B. McCrary Engineering Corp., Engr., Atlanta, Ga.

Wire Baskets.—J. S. Wilson, Bailey, N. C.—To correspond with mfrs. of wire baskets and wire goods.

Woodworking Machinery.—Jno. P. Burke, Mgr. Newtown Giant Incubator Corp., Harrisonburg, Va.—Prices on double end tenoner too cut 6-in. tenons 76-in. between shoulders-pulley drive; double surfacer 30-in. round heads, jointing attachment, sectional roll-spring loaded chipbreaker tight and loose pulley drive; continuous feed glue jointer; automatic hollow chisel mortiser.

Wrench.—J. P. McCallum, 1902 Jetton Ave., Tampa, Fla.—To contract for the mfr. of adjustable socket wrench.

Woodworking Machinery.—W. F. Muecke, Macon, Ga.—To purchase mch. for cabinet makers shop.

Financial News

New Financial Corporations.

Fla., Plant City—Farmers & Merchants Bank, capital \$100,000, inctd. with W. A. Hayond, Prest.; Geo. H. Wilder, Vice-Prest.

Ga., Savannah—Citizens and Southern Bank applied for charter for Citizens and Southern Co.; \$2,000,000 capital; Mills B. Lane, William Murphey and S. B. Adams, Incorporators.

Ky., Fort Thomas—Bank of Fort Thomas, capital \$25,000, organized with Dr. Shaller Berry, Prest.

Ky., Stanton—Powell County Bank, capital \$25,000, inctd. by J. H. Hardwick, H. G. Garrett, Winchester, and others.

Okla., Britton—First National Bank, capital \$25,000, organized with R. M. Whistler,

Prest.; S. L. Shintaffer, V.-P. and J. Ross Wildman, Cashier. (Lately noted.)

S. C., Anderson—Anderson Building & Loan Assn. plans to organize. Address Carolina National Bank.

S. C., Beaufort—Beaufort Building & Loan Assn., capital \$50,000, inctd. with H. H. Lake, Prest.; E. E. Leignick, V.-P.

S. C., Cheraw—Cottage Building & Loan Assn., \$100,000 capital, inctd. with J. O. Raley, Prest.; W. E. Duvall, V.-P. (Lately noted.)

Tenn., Knoxville—Cumberland Trust Co., capital \$100,000, organized by Fred Henck and others.

Tenn., Memphis—Home Building Saving Assn., capital \$10,000, inctd. by Wm. J. Bacon, Jos. McCoy and others.

Tenn., Nashville—Guardian Trust Co., capital \$100,000, inctd. by Theo. W. Pinson, V. G. Bratton and others.

Tenn., Paris—First Savings Bank & Trust Co., \$50,000 capital, inctd. by C. E. Hasting, C. H. Parks and others.

Tex., Buda—Farmers National Bank of Buda, capital \$30,000, conversion of Farmers State Bank of Buda; F. A. Jamison, Correspondent.

New Securities.

Ala., Bessemer—School—City, B. C. Jones, Mayor, receives bids until June 20 for \$200,000 5% bonds; \$1000 denomination. (Lately noted.)

Ala., Birmingham—Improvement—City Comsn. sold \$88,500 5½% bonds to Steiner Bros. & Co. at par and \$1,893.90 premium. (Lately noted.)

Ala., Decatur—School—City voted \$25,000 bonds. Address The Mayor.

Ala., Decatur—Road—Morgan County Bd. of Revenue plans issuing \$409,000 bonds.

Ala., New Brockton—Electric and School—Town will vote on \$17,000 bonds. Address The Mayor.

Ark., Bridge Junction—Levee—St. Francis Levee Dist., H. D. Tomlinson, Prest. of Board, receives bids until June 29 for \$240,000 5¼ or 6% bonds.

Ark., Pine Bluff—Paving—Paving District No. 57, Rowell Alexander, Attys., sold \$50,000 5¼ and 6% bonds to National Bank of Arkansas, for \$55,000.

D. C., Washington—Sewer—Washington Suburban Sanitary Dist. Comms. sold \$500,000 4¼% bonds to syndicate composed of Strother, Brodgen & Co., Mercantile Trust & Deposit Co., Continental Co., Mackubin, Goodrich & Co., Baker, Watts & Co., Nelson Cook & Co., Townsend Scott & Son and Stein Bros. & Boyce, Baltimore, Md.

Fla., Coconut Grove—Town Hall, Sewerage, Streets and Lights—City voted \$60,000 bonds. Address The Mayor.

Fla., Coconut Grove—Light and Sewer—City voted \$60,000 bonds. Address Hugh H. Matheson.

Fla., Eustis—Paving and Sewer—Chas. Estes, Chrmn. Board of Bond Trustees, receives bids until July 3 for \$110,000 bonds.

Fla., Lake Wales—Street—Town sold \$200,000 6% bonds to J. L. Arlitt, Austin; \$500 denomination. Address The Mayor.

Fla., Fort Pierce—Road—St. Lucie County Comms., Fort Pierce and White City Comms. Dist. voted \$50,000 bonds. (Lately noted to vote.)

Fla., Hopewell, P. O. Keysville—Road—City votes June 20 on \$3,000,000 bonds. Address The Mayor.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Fla., Miami—Improvement—City Comsn., W. A. Kohlhepp, Dir. of Finance, sold \$70,000 5% bonds to Geo. Gibbons & Co., New York at \$10,370 premium. (Lately noted.)

Fla., Quincy—Paving, Water, Sewer and Electric—City, J. P. Smith, receives bids until July 18 for \$40,000 paving, \$40,000 water and electric, \$14,000 water main and \$40,000 sewer; 5%.

Fla., Safety Harbor—Paving and Light—Town, A. E. Shower, Clk., receives bids until July 5 for \$35,000 street paving and \$10,000 light plant bonds; 6%.

Fla., St. Petersburg—Power Plant, Harbor and Sewer—City, Guy B. Shepard, Dir. of Finance, voted \$300,000 power plant, \$50,000 Bayboro harbor improvement and \$15,000 sewer bonds. (Lately noted.)

Fla., Sanford—Street, Sewer, Pier, Building and Indebtedness—City receives bids until June 22 for \$325,000 of \$625,000 bonds voted; \$1000 denomination, 6%; dated July 1, 1922; mature July 1, 1925.

Fla., Starke—Water—City voted \$36,000 bonds. Address The Mayor.

Fla., West Palm Beach—Improvement—City voted \$100,000 high pressure water, \$10,000 waterfront improvement and \$10,000 building bonds. Address The Mayor. (Lately noted.)

Fla., West Palm Beach—Road and Bridge—Palm Beach County Comms., Fred E. Feno, Clk., receives bids until July 5 for \$250,000 6% Special Road and Bridge Dist. No. 18 bonds; \$1000 denomination.

Fla., West Palm Beach—Bridge Road—Palm Beach County Comms., Hector Harris, Chrmn., votes June 22 on \$100,000 bonds.

Ga., Athens—Road, Bridge and Dormitory—Clarke County Comms. will call election about July 12 for \$150,000 road and bridge and \$50,000 University of Georgia dormitory bonds.

Ky., Ashland—School—Board of Education, W. B. Whitt, Prest., receives bids until June 15 for \$250,000 4 3/4% bonds.

Ky., Bowling Green—School—Wyatt W. Williams, Secy., Board of Education, receives bids until July 3 for \$100,000 5% bonds.

Ky., Hickman—School—City voted \$30,000 bonds. Address The Mayor.

Ky., London—School—Board of School Trustees, W. A. Wickersham, Chrmn., receives bids until June 15 for \$21,500 6% bonds; \$100 denomination.

La., Abbeville—School—Erath School Dist. Trustees sold \$75,000 6% bonds to Caldwell & Co., Nashville at \$5450 premium.

La., Monroe—School—City Comsn. will sell \$400,000 bonds.

La., Minden—Refunding—Town, W. O. Ashby, Clk., receives bids until June 22 for \$140,000 6% bonds.

La., Point a la Hache—Road—Plaquemines Parish Police Jury sold Road Dist No. 1 bonds for \$102,200 and Road Dist No. 2 bonds for \$133,700 to Prudent & Co., Toledo, O.

La., Springville—School—Livingston Parish School Board, Ernest S. Easterly, Prest., receives bids until July 5 for \$30,000 bonds.

La., Winnsboro—Water and Sewer—Town, H. G. Vaught, Mayor, voted \$80,000 bonds. (Lately noted.)

Md., Annapolis—Loan—Anne Arundel County Comms., S. O. Tilghman, Clk., receives bids until July 3 at courthouse for \$400,000 4 1/2% loan of 1922 bonds; \$500 and \$1000 denominations.

Md., Frederick—Road—Frederick County Comms. receive bids until June 15 for \$62,000 5% bonds.

Md., Frederick—School—Frederick County Comms. will sell \$375,000 bonds.

Md., Rockville—Road and School—Montgomery County Comms., Berry E. Clark, Clk., receives bids until June 20 for \$78,775 road and \$80,000 school bonds; 4 1/2%.

Miss., Durant—Water, Sewer and School—City, D. V. Pound, Mayor, sold \$80,000 6% bonds to A. K. Tigrett & Co., Memphis, Tenn., at par, accrued and \$2775 premium. (Lately noted.)

Miss., Jackson—Auditorium, School, Water and Sewer—City voted \$150,000 bonds. Address The Mayor.

Miss., Marks—Drainage—Lost Lake Drainage Dist. Comms. of Quitman County receive bids until June 12 for \$50,000 bonds; \$1000 denomination.

Mo., Fulton—Road—Calloway County, R. S. Lamar, H. G. Turner and J. L. Maughs, Comms., receives bids until June 10 for \$50,000 5% bonds; dated July 1, 1922; \$1000 denomination.

Mo., Glasgow—Bridge—Howard County voted \$105,000 bonds. Address County Comms. (Lately noted.)

Mo., Marshall—School—School Dist. Trustees sold \$199,000 bonds at \$7265 premium.

Mo., Miami—Bridge—Saline County voted \$300,000 bonds. Address County Comms.

Mo., Poplar Bluff—Road—Butler County Comms. sold \$300,000 5% bonds to Kauffman-Smith-Emert & Co. and Wm. R. Compton, St. Louis, at \$8589 premium. (Lately noted.)

Mo., Sarcoxie—Waterworks—City sold \$12,000 bonds to Commerce Trust Co., Kansas City, Mo.

Mo., St. Joseph—Fire Department, Judgements and Costs and Indebtedness—City, D. S. Willard, Comptroller, sold \$240,000 fire department, \$45,000 judgements and costs, \$25,000 asphalt plant, and \$30,000 street bonds to Kauffman-Smith-Emert & Co., St. Louis and Curtis & Sanger, New York, at \$17,772 premium. (Lately noted.)

N. C., Chapel Hill—School—City voted \$40,000 bonds. Address The Mayor.

N. C., Duke—School—City votes June 15 on \$75,000 bonds. Address The Mayor.

N. C., Greensboro—Road Guilford County Comms., receive bids until Aug. 7 for \$1,000,000 bonds.

N. C., High Point—School—City voted \$250,000 bonds. Address The Mayor.

N. C., Hobgood—Electric—Town, E. L. Bradley, Clk., will issue \$10,000 bonds.

N. C., Lexington—School—City voted \$225,000 bonds. Address The Mayor.

N. C., Lumberton—Road and Bridge—Robeson County, M. W. Floyd, Clk., receives bids until June 12 for \$35,000 5% bonds; \$1000 denomination.

N. C., Madison—Water and Sewer—Board of Aldermen, J. C. Thompson, Town Clk., receives bids until June 20 for \$100,000 bonds.

N. C., Raeford—School—Mildousan School Dist. Trustees, G. W. Maxwell, Secy., sold \$15,000 6% bonds to Sutherland, Barry & Co., New Orleans, for \$15,338. (Lately noted.)

N. C., Rowland—Town, J. E. Lytch, Mayor, receives bids until July 10 for \$15,000 6% bonds.

N. C., Stantonburg—Electric—Town, S. H. Crocker, Mayor, receives bids until July 23 for \$20,000 6% bonds; \$1000 denomination.

N. C., Tabor—Funding—Town, W. H. Shelly, Clk., receives bids until June 12 for \$10,000 6% bonds; \$500 denomination.

N. C., Taylorsville—Water and Sewer—Town, G. F. Myrum, Mayor, receives bids

until June 20 for \$75,000 6% bonds; \$1000 denomination.

N. C., Wilson—Courthouse—Wilson County Comms. considering calling election on \$250,000 bonds.

Okla., Claremore—Road—Rogers County plans issuing bonds. Address County Commissioners.

Okla., Delaware—School—City voted \$60,000 bonds. Address The Mayor.

Okla., Hugo—Water—City will issue \$150,000 5 1/2% bonds. Address The Mayor.

Okla., Locust Grove—Light—City voted \$20,000 bonds. Address The Mayor.

S. C., Columbia—School—Board of School Comms., A. C. Moore, Chrmn., receives bids until June 17 for \$75,000 5% bonds; \$1000 denomination; dated June 7, 1922; mature June 1, 1947. (Lately noted.)

S. C., Greenville—Road—Greenville County, H. P. Dill, Supvr., sold \$75,000 4 3/4% bonds to Sydney-Spitzer Co., Chicago, at \$495 premium. (Lately noted.)

S. C., Greenville—Water and Sewer—City voted \$300,000 sewer and \$100,000 water bonds. Address The Mayor.

S. C., McCormick—Courthouse and Jail—Town Council and McCormick County Comms. sold \$30,000 town and \$40,000 county bonds to J. H. Hillsman & Co., Atlanta, Ga., for \$70,527. (Lately noted.)

S. C., Orangeburg—School—City voted \$70,000 bonds. Address The Mayor.

Tenn., Clinton—School—Anderson County, J. H. Wallace, Judge, receives bids until July 8 for \$30,000 5% bonds; \$1000 denomination.

Tenn., Cole Creek—School—City voted \$30,000 5% bonds. Address The Mayor.

Tenn., Crossville—School—City, U. S. Rose, Recorder, receives bids until June 10 for \$20,000 6% bonds; \$500 denomination.

Tenn., Memphis—Revenue—City, C. C. Pashby, Clk., receives bids until June 13 for \$500,000 6% revenue notes; \$1000 denomination.

Tex., Alice—Funding—City sold \$18,500 7% funding warrants to J. L. Arlitt, Austin; \$500 denomination. Address The Mayor.

Tex., Beaumont—Road—Attorney General, Austin, approves \$2,000,000 Jefferson County bond issue; J. B. Peck, County Judge.

Tex., Braunfels—Street and Bridge—City sold \$50,000 6% bonds to J. L. Arlitt, Austin; \$500 denomination. Address The Mayor.

Tex., Canton—Street—City sold \$7000 6% warrants to J. L. Arlitt, Austin; \$500 denomination. Address The Mayor.

Tex., Celina—Light and Water—City, S. A. Ausley, Mayor, will vote on \$76,000 bonds.

Tex., Clinton—School—Harris County voted \$15,000 bonds. Address County Comms.

Tex., Del Rio—Water Works—City sold \$17,500 7% bonds to J. L. Arlitt, Austin, \$500 denomination. Address The Mayor.

Tex., Dublin—Water Works—City, J. S. Daley, Mayor, votes June 14 on \$25,000 5% bonds.

Tex., Franklin—Road—Comms. Court sold \$150,000 bonds of Robertson County Road Dist. No. 7, to Taylor-White Co., Oklahoma City. (Lately noted.)

Tex., Georgetown—Paving—City sold \$85,000 bonds to Breg, Garnett & Co., Dallas for 97 1/2%. Address The Mayor. (Lately noted.)

Tex., Hillsboro—School—City voted \$80,000 bonds. Address The Mayor.

Tex., Hull—School—Independent School Dist., V. E. Guesendorff, Secy., votes June 10 on \$100,000 6% bonds.

Tex., Kaufman—School—City, R. J. Rowe,

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Mayor, sold \$100,000 5½% bonds to C. W. McNear & Co., Chicago, at \$2025 premium; \$1000 denomination. (Lately noted.)

Tex., Laredo—Street—City sold \$150,000 bonds to J. E. Jarrett & Co., San Antonio. Address The Mayor.

Tex., Lipscomb—School—City voted \$20,000 6% bonds. Address The Mayor.

Tex., Mexia—Waterworks, Sewer and Disposal Plant—City sold \$250,000 6% bonds to Breg, Garrett & Co., Dallas; \$1000 denomination. Address The Mayor. (Lately noted.)

Tex., Munday—Waterworks—City sold \$60,000 6% bonds to Breg, Garrett & Co., Dallas; \$1000 denomination. Address The Mayor.

Tex., Nacogdoches—School—School Dist. Trustees sold \$50,000 6% bonds to Stern Bros. & Co., Kansas City, at 100.08. (Lately noted.)

Tex., Oakville—Road—Live Oak County Comms., sold \$7000 5½% bonds to J. L. Arlitt, Austin; \$500 denomination.

Tex., Olton—School—City sold \$15,000 6% bonds to Breg, Garrett & Co., Dallas; \$1000 denomination. Address The Mayor.

Tex., Orange—School—City Comms., M. G. Davies, Secy., sold \$175,000 bonds to Sutherland, Barry & Co., New Orleans, at par and accrued interest.

Tex., Pampa—Water Works and Sewer—Mayor.

Tex., Panhandle—School—Attorney General, Austin, approved \$40,000 6% bonds. Address The Mayor.

Tex., Rio Grande—School—Starr County Comms., sold \$12,000 6% bonds to J. L. Arlitt, Austin; \$500 denomination.

Tex., Rochelle—School—City voted \$12,000 bonds. Address The Mayor.

Tex., San Antonio—School—City votes June 20 on \$2,000,000 bonds. Address The Mayor.

Tex., Sherman—School and Street—City, W. G. Banks, Clk., receives bids until June 12 for \$100,000 school and \$50,000 street bonds; 5½%. (Lately noted.)

Tex., Silverton—Road—Briscoe County Comms., sold \$94,000 5½% bonds to J. L. Arlitt, Austin; \$1000 denomination.

Tex., Slaton—School—City sold \$200,000 of \$400,000 5% bonds to Breg, Garrett & Co., Dallas; \$1000 denomination. Address The Mayor.

Tex., Swenson—Swenson National Bank, capital \$25,000, conversion of First Bank of Swenson; R. S. Ward, Correspondent.

Tex., Teague—Hospital—Attorney General, Austin, approved \$50,000 6% bonds. Address The Mayor.

Tex., Texarkana—Street—City, W. J. Nichols, Mayor, will sell \$250,000 bonds.

Tex., Waco—School—Attorney General, Austin, approved \$400,000 5% bond issue.

Tex., Waco—School—City sold \$200,000 of \$400,000 5% bond issue to Breg, Garrett & Co., Dallas; \$1000 denomination. Address The Mayor.

Va., Ashland—Water—City voted \$70,000 bonds. Address The Mayor.

Va., Bristol—Water Works—City votes August 3 on \$50,000 bonds. Address The Mayor. (Lately noted.)

Va., Harrisonburg—Water—City sold \$150,000 5% bonds to Rockingham National Bank at 100.089; \$1000 denomination. Address The Mayor.

Va., Lexington—Road and Street—City voted \$85,000 bonds. Address The Mayor.

Va., Richmond—Improvement—City, Bar-

ton H. Grundy, Chrmn., Finance Comm., receives bids until June 20 for \$500,000 street and park, \$500,000 school, \$500,000 water works and \$250,000 gas works bonds; 4½%.

W. Va., Fairmont—Road—Marion County Court, Lee N. Satterfield, Clerk., receives bids until June 30 for \$391,000 5½% bonds. W. Va., Williamsport—Water—City voted \$10,000 bonds. Address The Mayor.

W. Va., Harrisville—School—Attorney General, Charleston, approved \$42,000 bond issue. Address The Mayor.

W. Va., Malden—School—City voted \$90,000 bonds. Address The Mayor.

W. Va., Morgantown—Sewer—City will probably vote July 13 on \$750,000 bonds. Address The Mayor. (Lately noted.)

W. Va., Parkersburg—School—City will vote on \$650,000 bonds. Address The Mayor.

W. Va., Wheeling—Waterworks City, Walter M. Evans, Clk., receives bids until June 20 for \$2,000,000 5% bonds.

Financial Notes.

Ala., Athens—Farmers and Merchants Bank has been admitted to Federal Reserve system.

Md., Elkton—Elkton Banking & Trust Co. of Maryland, increased capital from \$100,000 to \$125,000.

Tex., Dallas—Republic National Bank, W. O. Connor, Pres., plans to organize two branch offices at Oak Cliff and Fair Park.

W. Va., Morgantown—Farmers and Merchants' Bank consolidated with Bank of Monongahela Valley; capital \$5,000,000.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Pump Patterns Purchased.

The Worthington Pump & Machinery Corporation, 115 Broadway, New York, has purchased all drawings, records and patterns covering centrifugal pumps and pumping engines manufactured by the Camden Iron Works, Camden, N. J., and formerly sold either direct or through R. D. Wood & Co., Philadelphia, and others. The Worthington organization will henceforth manufacture these pumps.

Department Removal.

The hardwood department of the Chicago Lumber & Coal Co. was removed on June 1 from Memphis, Tenn., to the general offices of the company in the Arcade Building, St. Louis, Mo. D. S. Watrous will continue to be sales manager of the department, but a division sales office will still be maintained at Memphis for the convenience of buyers. This change was made for greater facility in conducting business.

Many Installations Reported.

Installations of their ice making and refrigerating machinery at different points in the South during May are reported by the York Manufacturing Co., York, Pa., as follows: Reidsville, N. C.; Dallas, Tex.; Atlanta, Ga.; Fort Payne, Ala.; Raleigh, N. C.; Macon, Ga.; Mobile, Ala.; St. Louis, Mo.; San Antonio, Tex.; Elkin, N. C.; Franklin, Ky.; Vacherie, La.; York, S. C.; Kansas City, Mo.; Gainesville, Tex.; Memphis, Tenn.; Lexington, Ky.; Fairhope, Ala.;

Trade Literature.

Panorama of Road Building Equipment.

A "Road Equipment Panorama" issued by the Austin Machinery Corporation, Chicago, Ill., will be appreciated by roads engineers and contractors. It shows: I.—A paving mixer, preceded by a subgrader, supplied with industrial railway equipment and followed by a tamper. II.—A central mixing plant, with trucks hauling the concrete. III.—Working from the subgrade—loading by wagon loaders into trucks for the haul to the mixer. Three ways of handling to meet conditions but either resulting in a smooth, even and durable road.

The "Una-Flow" Steam Engine Described.

The second edition of "The Una-Flow Steam Engine" by J. Stumpf, has been issued by the Stumpf Una-Flow Engine Co., Inc., Syracuse, N. Y. This is a fully illustrated volume of more than 300 pages substantially bound and containing complete descriptions of the una-flow principle in the construction of engines of different types and including locomotives. The preface says: "The second edition of this book represents a complete revision of the first one, little of which remains. The first edition contained a good many opinions in addition to facts and intended rather for the purpose of defending the una-flow engine against antiquated theories and attacks. In the meantime the una-flow principle has been widely tried out and scientifically investigated. It has become an accomplished fact and is in common use." The una-flow engine is so called because the steam energy is used in one direction when passing through the cylinder. Important advantages are claimed for this method.

Frankfort, Ky.; Cumberland, Md.; Houston, Tex.; Henrietta, Tex.; Staunton, Va.; Baltimore, Md.; Jenkins, Ky.; Culpepper, Va.; Mullins, S. C.; Martinsville, Va.; Guyton, Ga.; Wheeling, W. Va. At several points more than one installation was made. In addition to the places noted here, many other points all over the country saw installations of the products of this company.

District Office Established.

A district sales office has been opened in the Jefferson County Bank Building, Birmingham, Ala., by the Iron Products Corporation of New York and its subsidiaries, the Central Foundry Co., the Central Iron & Coal Co., the Central Radiator Co. and the Molby Boiler Co. T. C. Hyde formerly in Atlanta, is manager of the new office, and also with headquarters there are W. Z. Reynolds, formerly in Chattanooga, and Hewitt Thompson, all of whom will continue to sell their respective lines. The Corporation has several of its plants located in the Birmingham District.

Statistics of Metals.

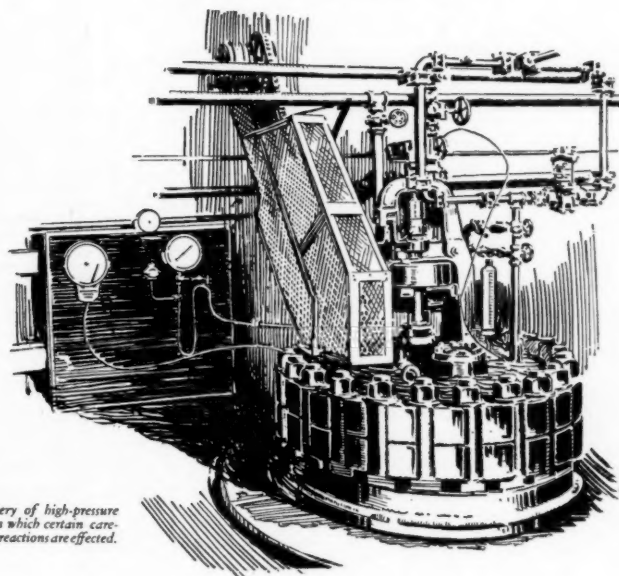
"Metal Statistics—1922" is the fifteenth annual edition of this standard publication which is issued every year by the "American Metal Market and Daily Iron & Steel Report," 81 Fulton St., New York. As its name indicates its 500 pages are full of information relating to the different metals of industry and commerce. It is a compact and reliable work of reference.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DUPONT

VAT ACID CHROME BASIC SULFUR DIRECT

DYESTUFFS



One of a battery of high-pressure fusion-kettles in which certain carefully controlled reactions are effected.

Constant Vigilance

IN order to insure the production of standard uniform dyestuffs, every step in their manufacture must be under constant observation.

Pressure, temperature, speed of agitation as well as duration of reaction are vital factors which, if not kept under absolute control during dyestuffs manufacture, destroy every desirable quality.

The excellence of Du Pont plant control is reflected in the *uniformity* of the product. You get *uniform* results from *uniform* Du Pont Dyestuffs.

E. I. du Pont de Nemours & Co., Inc.

Dyestuffs Department

WILMINGTON DELAWARE

BRANCH OFFICES:

New York	Boston	Providence
Philadelphia	Chicago	
Greensboro, N. Car.	Watertown, N. Y.	
Charlotte, N. Car.		

STANDARD

**DUPONT
DYESTUFFS**

UNIFORM

SOUTHERN PACIFIC COMPANY

REPORT OF THE BOARD OF DIRECTORS

NEW YORK, N. Y., June 1, 1922.

TO THE STOCKHOLDERS OF THE SOUTHERN PACIFIC COMPANY:

Your Board of Directors submits this report of the operations and affairs of the Southern Pacific Company and of its Proprietary Companies for the fiscal year ended December 31, 1921.

TRANSPORTATION OPERATIONS

As stated in last year's report, your properties were operated by the Director General of Railroads during the first two months of 1920, and by your Company during the last ten months of that year. In the following table, however, which shows the net railway operating income for the year 1921 compared with that for the year 1920, the 1920 figures include the results from operation for the entire year, regardless of the change in control.

	Year Ended December 31, 1921	Year Ended December 31, 1920	+ Increase - Decrease	Per Cent
1. Average miles of road operated.....	11,187.99	11,151.60	+ 36.39	.33
RAILWAY OPERATING REVENUES				
2. Freight.....	\$181,409,691.87	\$183,416,522.60	-\$2,006,830.73	1.09
3. Passenger.....	63,442,251.17	71,701,637.36	-\$8,259,386.09	11.52
4. Mail and express.....	11,935,604.42	13,660,158.92	-\$1,724,554.50	12.62
5. All other transportation.....	5,938,563.30	5,674,092.84	+\$264,470.46	11.12
6. Incidental.....	6,958,342.55	8,342,712.13	-\$1,384,369.58	16.59
7. Joint facility—Credit.....	166,168.78	105,349.51	+\$60,819.27	57.73
8. Joint facility—Debit.....	56,257.82	30,967.01	+\$25,290.81	81.67
9. Total railway operating revenues.....	\$269,494,365.33	\$282,369,504.25	-\$12,775,138.92	4.53
RAILWAY OPERATING EXPENSES				
10. Maintenance of way and structures.....	\$42,198,882.59	\$48,465,465.36	-\$6,266,582.67	12.93
11. Maintenance of equipment.....	49,188,143.35	59,548,392.36	-\$10,360,249.01	17.40
12. Total maintenance.....	\$91,387,025.94	\$108,013,857.82	-\$16,626,831.68	15.39
13. Traffic.....	1,192,148.44	1,490,705.34	-\$298,556.90	19.81
14. Transportation.....	104,744,036.41	117,227,797.91	-\$12,483,761.50	10.65
15. Miscellaneous operations.....	4,153,650.67	5,009,062.74	-\$855,412.07	25.95
16. General.....	8,321,539.30	8,112,651.83	+\$208,887.47	5.04
17. Transportation for investment—Credit.....	416,329.67	340,286.37	+\$76,043.30	22.35
18. Total railway operating expenses.....	\$212,572,262.79	\$242,113,790.06	-\$29,541,527.27	12.20
19. Net revenue from railway operations.....	\$56,922,102.54	\$40,155,714.19	+\$16,766,388.35	41.75
20. Railway tax accruals.....	\$15,539,469.20	\$14,792,063.67	+\$747,405.53	5.05
21. Uncollectible railway revenues.....	124,565.69	112,945.09	+\$11,620.60	10.29
22. Railway operating income.....	\$41,258,067.93	\$25,250,705.43	+\$16,007,362.22	63.39
23. Equipment rents—Net.....	5,154,543.91	4,496,775.66	+\$657,768.25	14.63
24. Joint facility rents—Net.....	156,732.60	\$558,414.27	-\$401,681.67	128.07
25. Net railway operating income.....	\$35,946,791.14	\$21,312,344.04	+\$14,634,447.10	68.67

The figures for the year 1921, shown in the foregoing table, do not represent the actual results from operations during the year, because the accounts, as stated, include estimates of unaudited items such as lost and damaged claims and repair claims, appertaining to operations during the guaranty period (March to August, 1920, inclusive). In the case of many of these claims the Company's liability cannot be definitely determined in advance of final decision by State Commissions, by the Interstate Commerce Commission, or by the courts. They are included in the current accounts, because the Interstate Commerce Commission decided on December 15, 1921, that the operating income accounts for the guaranty period should be closed as of December 31, 1921, and that no item would be considered in connection with the Company's claim under the guaranty provision of the Transportation Act of 1920 unless taken into the accounts as of that date upon an actual or an estimated basis. If these guaranty period items were eliminated from the accounts, the net railway operating income for the year ended December 31, 1921, would amount to \$39,827,756.48. It should be understood, however, that although these guaranty period items reduce the *Net Railway Operating Income*, they do not affect the *Net Income* for the year (line No. 55 of the income statement), because they result in a corresponding increase in our claim against the Government on account of the guaranty, which is included in the account Miscellaneous operations on line No. 11 of the income statement.

The following summarizes results of transportation operations for 1921 compared with 1920, also compared with the Federal control years, 1918 and 1919, and with 1917:

	1921	1920	1919	1918	1917
Operating revenues.....	\$269,494,365	\$282,269,504	\$239,657,272	\$221,611,206	\$193,971,490
Relative to 1917 (100).....	139	146	124	114	100
Operating expenses.....	212,572,263	242,113,790	188,585,172	162,722,372	120,601,823
Relative to 1917 (100).....	176	201	155	135	100
Net revenue from railway operations.....	56,922,103	40,155,714	51,272,100	58,888,834	73,369,667
Relative to 1917 (100).....	78	55	70	80	100
Operating ratio, per cent.....	78.88	85.77	78.61	73.43	62.18
Traffic units (ton miles plus 3 times passenger miles), thousands.....	17,451,417	22,010,458	20,108,615	20,836,033	20,876,908
Relative to 1917 (100).....	84	105	97	100	100

Operating revenues were seriously affected by the nation-wide business depression that began about the close of 1920 and continued throughout the year 1921, aggravated on your company's lines by diversion of transcontinental business, by much lower rates offered by the Panama Canal route, and by the competition on the highways of motor trucks substantially free from taxation and regulation. The traffic units handled show a decrease of 29.71 per cent from the peak of 1920, and although advanced freight and passenger rates made effective August 1, 1921, would amount to \$39,827,756.48, year, operating revenues decreased 4.53 per cent. Average wages paid throughout 1921 were slightly higher than in 1920, as the wage increase dating from May 1, 1920, was effective during eight months of that year and six months of 1921, while during the remaining six months of 1921 wages were higher than during the first four months of 1920. Prices of fuel and other material in 1921 also averaged more than in 1920. The combined effect of these higher wages and higher material prices increased 1921 operating expenses by \$5,292,000. Notwithstanding these adverse conditions, operating expenses were reduced 12.20 per cent and net revenue from railway operations increased 41.75 per cent. This net result reflects the improvement forecast in last year's report as progress is made in substituting the incentive of self-interest of private management, and the increased efficiency and more cheerful service of the entire operating staff, for the apathy and blight of Government management.

AVERAGE MONTHLY WAGES EARNED BY REPRESENTATIVE CLASSES OF EMPLOYEES

	6 Months Ending December 31		Year	Relative		
	1921	1920	1919	1921	1920	1919
Engineers.....	\$251.77	\$216.77	\$182.10	144	174	161
Conductors.....	234.66	202.39	149.54	157	167	139
Firemen.....	194.15	231.46	110.25	176	210	100
Other trainmen.....	188.35	219.50	107.39	176	205	100
Mechanists.....	161.81	201.06	165.62	153	193	100
Carpenters.....	138.23	175.63	129.41	127	221	100
Clerks.....	136.69	151.13	84.87	161	178	100
Employees, floating equipment.....	110.64	120.10	71.51	156	168	100
Station service employees.....	87.53	124.51	71.34	137	175	100
Sectionmen.....	87.81	96.43	40.17	177	240	100
All other employees.....	131.22	163.60	82.97	158	197	100
Total employees.....	\$130.57	\$154.85	\$79.45	164	195	100

MATERIAL USED IN REPAIRS AND RENEWALS

	1921	1920	1919	1918
New steel rail, miles.....	427.43	427.43	474.73	408.44
Ties, number.....	4,721,542	4,887,913	4,173,774	3,889,768
Ties-plates, number.....	4,112,875	3,316,915	3,672,321	1,910,311
Piling, lineal feet.....	847,815	737,731	84,455	75,476
Lumber, feet b.m.....	23,557,715	23,710,582	15,402,935	6,354,863

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	May 1, 1921	Dec. 31, 1921	Sept. 1, 1921	Mar. 1, 1921	Dec. 31, 1920
All freight cars on line (including foreign and private).....	62,445	87,463	68,411	69,335	63,702
All freight cars in shops or awaiting repairs.....	5,069	6,158	8,341	2,996	2,260
Per cent of all freight cars in shops or awaiting repairs, to all cars on line.....	8.10%	9.13%	12.56%	4.32%	3.55%

After the return of the roads and the passage of the Transportation Act, your company's lines were applying to the United States Railroad Labor Board to readjust wages to meet changes in living costs, and to equalize wages paid by others in the industry and for like work in the territory in which your lines are operated. Modification was also requested of the unjust and onerous working rules of National Agreements made by the Director General under Federal control, whereby unearned wages and excessive amounts for overtime were paid. These applications have been granted in part, but a great many onerous conditions remain which increase expenses compared with those previous to Federal control, and which the carriers are seeking to remedy. Effective July 1, 1921, the Labor Board rendered a decision which lowered wages about 12 per cent, reducing by more than half the increase of 22 per cent granted May 1, 1920. According to a statement recently issued by the Labor Board, railway wages are still nearly 60 per cent higher than they were in December, 1917. Some of the roads were taken over by the Government. Whether justified or not, this higher scale profoundly affects expenses compared with the cost of operation previous to Federal control. The following table shows the average monthly wages earned by specified classes of employees on Southern Pacific lines under the new scale in the last half of 1921, compared with the same period of 1920 when higher wages were effective, and compared with wages earned in the year 1916, the year preceding the passage of the Adamson Act, which increased wages by shortening the measure of a day's work for train service employees. * See last column.

The decrease of \$12,775,138.92, equivalent to 4.53 per cent, operating revenues in the face of increased freight and passenger rates, which came effective during the latter part of preceding year, is principally attributable to the great shrinkage in traffic, which has resulted from severe depression of business, and which is reflected in a decrease of nearly 11 per cent in the aggregate operating revenues of the principal railroads of the country.

Revenue from passenger business was further diminished by a dearth of large conventions such as were held on the Pacific Coast during the preceding year, and by a substantial increase in travel by automobile. Much money is being appropriated by the Federal and State governments for the construction of highways that usually parallel the very roads which are heavily taxed to provide and maintain them.

Decrease in revenue from mail is due to a large payment by the Government for previous years, included in the year 1920, with which comparison is made.

Freight revenue has been adversely affected by the smallest cotton crop in Texas and Louisiana that has been produced in twenty years, by a large reduction in the acreage of rice planted in the same states; and by reduction of rates on such important commodities as beans, canned goods, dried fruit, livestock, lumber, apples, cantaloupes, and vegetables. Some of these reductions were made in deference to public sentiment, and in response to the producers' plea that they required such assistance to market their crops. Other reductions were made in order to restore market relationships that had been disturbed by previous horizontal increase, and again other reductions were made to stem the tide of wholesale diversion of transcontinental traffic to the steamship lines operating through the Panama Canal. In 1921, the number of steamship voyages through the Panama Canal between Atlantic and Pacific ports of the United States increased 80 per cent, and the volume of freight increased 83 per cent, over the preceding year. Freight shipped by direct sailings between the Pacific Coast and Europe and by direct sailings between Atlantic ports and trans-Pacific ports, some of which was formerly handled by transcontinental railroads, is not included in these increases. The steamship lines operating through the Panama Canal and other conspicuous advantages, because of which they are not subject to regulation by the Interstate Commerce Commission, may be freely changed from day to day. If these vessels are exempted from the payment of tolls, as pending legislation contemplates, their advantage will be increased at the expense of the taxpayers of the entire country. This competition is supplemented by barge lines operated by the Government (the Mississippi and the Ohio rivers, which carry freight at reduced rates between interior points and Gulf ports in connection with the canal steamship lines). The railroads have not made much progress towards meeting the competition for transcontinental freight, because of the unfair handicap to which they are subjected. To make rates of rail from Pacific Coast ports to secure a share of the traffic fostered by the Government, for which the Canal steamship lines now compete, the railroads are required by the long and short haul provision of the Interstate Commerce Law to reduce rates to the same bases as maxima at all intermediate points (where they are not necessary to meet the water competition), unless relief from that requirement is granted by the Interstate Commerce Commission, and even if such relief should be eventually granted, the railroads are subjected to the loss of the coast traffic during the many months consumed in hearings, argument, consideration, and decision. *Applications made in June and August, 1921, have not yet been decided after nearly a year's delay.*

Maintenance of way and structures decreased \$6,266,582.67, or 12.93 per cent. Although the cost of maintenance was substantially reduced, the properties were satisfactorily maintained during the year. This is evidenced by the following table showing materials used in repairs and renewals in 1921 compared with 1920, and compared also with the Federal control years 1919 and 1918, when there was deficient maintenance on a part of your lines. * See last column.

Maintenance of equipment decreased \$10,360,249.01, or 17.40 per cent, locomotive mileage decreased 6.75 per cent and total car mileage decreased 6.75 per cent. In the annual report for 1920 reference was made to the fact that at the close of Federal control 87.5 per cent of the company's box cars were on other railways. The deplorable condition of the equipment owing to the neglect of current repairs when away from home during Federal control, was not realized until we regained possession of our cars in the fall of 1921. The following table shows the condition of freight equipment at the beginning of 1921 and at the end of Federal control; on September 1, 1921, by which time most of our cars had been returned; at the close of 1921; and at May 1, 1922. * See last column.

Traffic expenses increased \$691,633.61, or 19.81 per cent, compared with 1920, and compared also with the Federal control years 1919 and 1918, when there was deficient maintenance on a part of your lines. * See last column.

Freight revenue has been adversely affected by the smallest cotton crop in Texas and Louisiana that has been produced in twenty years, by a large reduction in the acreage of rice planted in the same states; and by reduction of rates on such important commodities as beans, canned goods, dried fruit, livestock, lumber, apples, cantaloupes, and vegetables. Some of these reductions were made in deference to public sentiment, and in response to the producers' plea that they required such assistance to market their crops. Other reductions were made in order to restore market relationships that had been disturbed by previous horizontal increase, and again other reductions were made to stem the tide of wholesale diversion of transcontinental traffic to the steamship lines operating through the Panama Canal. In 1921, the number of steamship voyages through the Panama Canal between Atlantic and Pacific ports of the United States increased 80 per cent, and the volume of freight increased 83 per cent, over the preceding year. Freight shipped by direct sailings between the Pacific Coast and Europe and by direct sailings between Atlantic ports and trans-Pacific ports, some of which was formerly handled by transcontinental railroads, is not included in these increases. The steamship lines operating through the Panama Canal and other conspicuous advantages, because of which they are not subject to regulation by the Interstate Commerce Commission, may be freely changed from day to day. If these vessels are exempted from the payment of tolls, as pending legislation contemplates, their advantage will be increased at the expense of the taxpayers of the entire country. This competition is supplemented by barge lines operated by the Government (the Mississippi and the Ohio rivers, which carry freight at reduced rates between interior points and Gulf ports in connection with the canal steamship lines). The railroads have not made much progress towards meeting the competition for transcontinental freight, because of the unfair handicap to which they are subjected. To make rates of rail from Pacific Coast ports to secure a share of the traffic fostered by the Government, for which the Canal steamship lines now compete, the railroads are required by the long and short haul provision of the Interstate Commerce Law to reduce rates to the same bases as maxima at all intermediate points (where they are not necessary to meet the water competition), unless relief from that requirement is granted by the Interstate Commerce Commission, and even if such relief should be eventually granted, the railroads are subjected to the loss of the coast traffic during the many months consumed in hearings, argument, consideration, and decision. *Applications made in June and August, 1921, have not yet been decided after nearly a year's delay.*

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per cent, due to restoration of traffic agencies and increased activity to regain traffic diverted during Federal control, the increased expenditures being effective for twelve months in 1921 and ten months in 1920.

Transportation expenses decreased \$12,483,761.50, or 10.65 per cent. Train mileage decreased 7.63 per cent, but there was an increase of 6.8 per cent in the average price of fuel. The consumption of fuel per thousand tons of coal (oil and coal) on a basis of four barrels of oil to one ton of coal) showed a decrease both in passenger service and in freight service, the combined saving through greater fuel efficiency compared with previous year amounting to \$1,458,661. The improvement in use has been constant from year to year. In 1921, it brought about a saving of \$7,975,903 in the operating expenses of that year compared with 1915. The average car load decreased 4.55 per cent, largely due to an increase in the movement of products in refrigerator cars, where the car load is light, and to a decrease in movement of low grade heavy commodities. For this reason, and because of a decrease in the ratio of loaded to total freight cars, due to inability to fully load cars on account of the heavy fall in business, and the relocation of cars to owning lines after their dispersion, due to common use during Federal control, the tons of freight per train decreased 7.83 per cent, but the gross tons per train increased 1.36 per cent.

Miscellaneous operations decreased \$1,455,412.07, or 25.95 per cent, following decreased Industrial Revenues.

General expenses increased \$408,887.47, or 5.04 per cent, due to increased charges for Federal valuation work, increased accounting requirements, and allowances for pensions.

The increase in taxes for 1921 over 1920, is \$747,405.53. This increase is the result of an increase of \$1,893,052.10 in state and county taxes, due, principally, to an increase in the rate of taxation on gross earnings in California from 5 1/4 per cent to 7 per cent under the King Tax Law which became effective July 1, 1921; to an increase of \$170,606.93 in capital stock tax; and to a decrease of \$1,216,253.50 in Federal income and excess profits taxes, due, principally, to an assessment in 1920 of excess profits tax for the year 1917. As this report goes to press the large increase in taxes of \$747,405.53, or 5.05 per cent, over 1920 seems trivial in comparison with the excess profits taxes of months of 1922, which amounts to \$6,393,726.28, an increase of 38.26 per cent over 1921. At this rate taxes for the year 1922 will aggregate \$19,117,844, or 93 per cent of the dividends distributed to stockholders for 1921. Taxes amounted to \$8.60 for every hundred dollars of freight revenue during the year 1921, and to \$12.42 for every hundred dollars of freight revenue during the first four months of 1922.

The total Railway Tax Accruals for the year covered \$15,539,469.20, or 47.3 per cent, of the \$32,928,102.54 of Net Revenue from Railway Operations. With an increase of 138.76 per cent in the miles of road operated over the miles operated in 1885, the first year of operation, taxes have increased \$14,679,648, or 1,707.95 per cent.

The heavy passenger travel in motor vehicles has introduced an element of great danger at railway grade crossings, as shown in the following statement giving the casualties to persons in automobiles at crossings on your company's steam lines:

Number of persons killed..... 76 57

Number of persons injured..... 360 293

Several states now require motorists to stop before attempting to cross railroad tracks.

It is gratifying to observe the rapid recovery from the conditions that prevailed during Federal control towards normal conditions in the safety in the operation of your property in 1921, the first complete year of operation after Government control. In the three years of the test period ending in 1917, one fatality to employees in train accidents occurred to every 333,333 locomotive miles run; in the years of Federal control, to wit, 1918 and 1919, the fatalities were one to every 8,250,000 and 2,000,000 locomotive miles run respectively; in 1921 they were one to every 14,333,333 locomotive miles run.

Not a passenger was killed in a train accident in the three test years, but under Government control the number killed was 76, or every 3,703,000 locomotive miles run in 1918, and 1 to every 10,000,000 locomotive miles run in 1919. In 1921 the number was only 1 to every 50,000,000 locomotive miles run.

The extent to which maintenance of way and equipment was neglected on the lines in Louisiana and Texas during Federal control is shown by the number of derailments caused principally by defective track and equipment was 1 to every 280,000 locomotive miles run; during 1918 and 1919, under Federal control, it was 1 to every 150,000 and 90,000 locomotive mile run respectively; in 1921, the first entire year of private operation, it fell to 1 to every 295,000 locomotive miles run.

The attention of the Federal Railroad Administration was directed to the neglect of maintenance and the unsafe condition of these lines by your corporate officers and by the Louisiana Railroad Commission, but without substantial remedy.

See 2nd column.

OPERATING INCOME

As stated in last year's report, your properties, during the months of January and February, 1920, were operated by the U. S. Railroad Administration under the Federal Control Act, and for that period your Company received the standard return rental as fixed in the agreement with the Director General of Railroads during the year ending March 1 to December 31, 1920, your properties were operated by your Company, and the amounts reported in the column headed "Year Ended December 31, 1920" (lines 1 to 23), represent the operating results for those ten months. The operating results for the entire year 1920, regardless of the change in control, compared with the operating results for the year 1921 are shown in the table appearing at the beginning of the report.

The \$1,193,162.39, shown in the 1920 column as Miscellaneous Operating Income (line No. 29) represents the net operating income for January and February, 1920, of the Fuel Oil Department which was sold to the Southern Pacific Land Company on February 29, 1920.

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OPERATING INCOME

	Year Ended December 31, 1921	Year Ended December 31, 1920	+ Increase - Decrease	Per Cent
RAILWAY OPERATING REVENUES:				
1. Freight.....	\$181,009,691.87	\$157,220,043.42	\$24,189,648.45	15.39
2. Passenger.....	63,442,251.17	61,607,128.86	1,835,122.31	2.98
3. Mail.....	3,617,146.23	3,764,550.44	147,404.21	3.92
4. Express.....	8,318,458.19	6,034,466.52	2,283,991.67	37.39
5. All other transportation.....	5,638,563.35	4,839,538.29	799,025.16	16.53
6. Incidentals.....	6,958,343.55	7,034,752.12	80,408.57	1.14
7. Joint facility—Credit.....	166,168.78	81,889.56	84,279.22	102.92
8. Joint facility—Debit.....	56,257.82	24,874.94	31,382.88	126.16
9. Total railway operating revenues.....	\$269,494,365.33	\$240,381,492.18	\$29,112,873.15	12.11
RAILWAY OPERATING EXPENSES:				
10. Maintenance of way and structures.....	\$42,198,882.59	\$41,938,579.91	\$260,302.68	.62
11. Maintenance of equipment.....	49,188,143.33	49,921,811.29	733,667.94	1.47
12. Total maintenance.....	\$91,387,025.94	\$91,860,391.20	\$473,365.26	.52
13. Traffic.....	4,182,340.14	3,997,883.12	1,84,457.02	35.61
14. Transportation.....	104,744,636.41	100,486,656.12	4,257,980.29	4.24
15. Miscellaneous operations.....	4,153,650.67	4,830,833.96	677,183.29	14.02
16. General.....	8,521,530.30	7,247,152.52	1,274,377.78	15.30
17. Transportation for investment—Credit.....	416,329.67	536,066.68	80,262.99	23.88
18. Total railway operating expenses.....	\$212,572,282.79	\$207,186,859.24	\$5,385,423.55	2.60
19. Net revenue from railway operations.....	\$56,922,102.54	\$33,194,632.94	\$23,727,469.60	71.48
20. Railway tax accruals.....	15,539,469.20	18,006,696.07	2,467,226.87	15.92
21. Uncollectible railway revenues.....	124,365.69	95,346.40	29,019.29	30.65
22. Equipment rents—Net.....	5,154,543.91	4,060,345.12	1,094,198.79	26.95
23. Joint facility rents—Net.....	156,732.60	149,695.98	7,036.62	4.71
24. Net railway operating income.....	\$35,946,791.14	\$16,524,941.33	\$19,421,849.81	117.53
25. Revenues from miscellaneous operations.....	—	\$2,581,763.93	—	—
26. Expenses of miscellaneous operations.....	—	1,342,255.38	—	—
27. Net revenues from miscellaneous operations.....	—	\$1,239,508.55	—	—
28. Taxes on miscellaneous operating property.....	—	46,346.16	—	—
29. Miscellaneous operating income.....	—	\$1,193,162.39	—	—
30. Total operating income.....	\$35,946,791.14	\$17,718,103.72	\$18,228,687.42	102.88
NONOPERATING INCOME				
31. Income from lease of road—Standard return.....	\$852,740.80	\$8,043,288.03	\$7,190,547.23	89.40
32. Other income from lease of road.....	45,436.51	34,705.27	10,731.24	30.42
33. Miscellaneous rents—Income.....	1,153,029.15	809,388.71	343,640.44	42.46
34. Miscellaneous nonoperating physical property.....	370,177.59	373,830.41	3,652.82	.98
35. Separately operated properties—Profit.....	49,561.01	31,269.12	18,291.89	58.50
36. Dividend income.....	7,096,537.76	5,251,323.94	1,845,213.82	32.23
37. Income from funded securities—Bonds and notes—Affiliated and other companies.....	2,339,489.76	1,921,964.07	417,525.69	21.73
38. Income from funded securities—Investment advances—Affiliated companies.....	217,658.79	389,236.77	171,577.98	44.08
39. Income from unfunded securities—Bonds and notes.....	1,965,145.38	1,370,528.94	594,616.44	43.39
40. Income from sinking and other reserve funds.....	803,605.66	774,710.08	28,895.58	3.73
41. Miscellaneous income—U. S. Government guaranty.....	3,648,603.47	20,490,427.50	16,841,824.03	82.19
42. Other miscellaneous income.....	*91,393.07	401,949.71	310,556.64	34.24
43. Total nonoperating income.....	\$19,350,585.81	\$39,892,611.94	\$20,542,026.13	51.49
44. Gross income.....	\$55,297,376.95	\$57,610,715.66	\$2,313,338.71	4.02
DEDUCTIONS FROM GROSS INCOME				
45. Rent for leased roads.....	\$204,436.26	\$226,277.70	\$21,841.44	9.65
46. Miscellaneous rents.....	639,529.64	600,925.75	38,603.89	6.42
47. Miscellaneous tax accruals.....	608,090.91	838,367.78	230,276.87	37.89
48. Interest on funded debt—Nonnegotiable debt to affiliated companies.....	20,494,924.12	22,535,488.13	2,040,564.01	9.45
49. Interest on unfunded debt.....	2,075,322.71	136,478.00	1,938,844.71	9.45
50. Amortization of discount on funded debt.....	159,432.30	51,303.51	108,128.79	210.76
51. Amortization of discount on unfunded debt.....	169,490.36	169,228.14	262.22	.46
52. Maintenance of investment organization.....	25,368.30	24,789.93	578.37	2.33
53. Miscellaneous income charges.....	389,189.10	959,582.09	570,392.99	59.44
54. Total deductions from gross income.....	\$24,678,599.30	\$25,540,441.03	\$861,841.73	3.37
55. Net income.....	\$30,618,777.65	\$32,070,274.63	\$1,451,496.98	4.53
DISPOSITION OF NET INCOME				
56. Income applied to sinking and other reserve funds.....	\$1,051,559.39	\$1,053,945.19	\$2,385.80	0.26
57. Income appropriated for investment in physical property.....	22,000.00	—	22,000.00	—
58. Total appropriations.....	\$1,103,559.39	\$1,053,945.19	\$49,614.20	4.71
59. Income balance transferred to credit of profit and loss.....	\$29,515,218.26	\$31,016,329.44	\$1,501,111.18	4.84
60. Per cent of net income on average amount of outstanding capital stock of Southern Pacific Company:				
(a) Railroad income.....	6.12	7.53	1.41	18.73
(b) Other income.....	2.81	3.04	.23	7.57
(c) Total.....	8.93	10.57	1.64	15.53

* Debit. † Credit. ‡ In arriving at the figures for per cent of railroad income and per cent of other income on outstanding capital stock, an estimated apportionment of net income was made by allocating as nearly as possible, to railroad income the items relating solely to that class, and to other income the items relating solely to that class, the remaining items being apportioned between the two classes on an estimated basis.

NONOPERATING INCOME

The item of \$8,043,288.03, shown in the 1920 column as Income from Lease of Road—Standard Return (line No. 31), represents the proportion for January and February, 1920, of the standard return rental as fixed in the agreement with the Director General of Railroads. The item of \$852,740.80, shown in the 1921 column (line No. 31), is made up of \$1,859,646.63, representing the approximate amount of additional compensation for the use of additions and betterments, new equipment, and road extensions completed during the period of Federal control, less \$1,006,905.83, representing the net deduction from the standard return rental (as fixed in the agreement with the Director General of Railroads and taken into account by the Company during the period of Federal control) resulting from changes and corrections made by the Interstate Commerce Commission in the accounts for the test period which were used as the basis of the standard return.

The increase of \$343,634.45 in Miscellaneous Rent Income (line No. 23) is due, principally, to the rental received this year, from Associated Oil Company and from Pacific Oil Company, for the use of oil pipe line formerly used by the Fuel Oil Department.

The increase of \$594,617.04 in Income from Unfunded Securities and Accounts (line No. 39) represents interest on U. S. Government Certificates, bank acceptances, and increased bank deposits, resulting from the sale of the California Oil Properties mentioned in last year's report.

The item of \$20,490,427.50, shown in the 1920 column as Miscellaneous Income—U. S. Government Guaranty (line No. 41) represents the estimated amount due from the Government, under its guaranty, for the six months ended August 31, 1920, such estimate having been based on figures available at December 31, 1920, as explained on page 3 of last year's report. The item of \$3,648,603.47 shown in the 1921 column (line No. 41) is made up of \$3,880,965.34, representing estimates of unutilized items taken into account this year for the reasons stated in the first paragraph on page 7, less \$232,362.87, representing an adjustment in the amount of the Government guaranty as booked to December 31, 1920, due to the adjustment made by the Interstate Commerce Commission in the amount of the standard return rental, as explained in the third paragraph above.

The decrease in Other Miscellaneous Income (line No. 42) is the result, principally, of charges made during the year by the U. S. Railroad Administration representing adjustments on account of revenues prior to January 1, 1914, credited to the Company during the period of Federal control.

DEDUCTIONS FROM GROSS INCOME

The decrease of \$2,313,338.71 in Interest on Funded Debt—Bonds and Notes (line No. 48), is made up of a decrease of \$2,624,614.79 resulting from the conversion of Southern Pacific Company Four and Five Per Cent Twenty-Year Convertible bonds into capital stock; a decrease of \$278,912.15 resulting from the retirement of bonds and equipment trust certificates maturing during the year; a decrease of \$35,753.78 resulting from the retirement of bonds through sinking funds; a decrease of \$294,894.17 resulting from the acquisition of bonds by Southern Pacific Company and Property Companies; and an increase of \$204,583.33, resulting from a full year's interest, this year, on Southern Pacific Equipment Trust Certificates, Series E, issued as of June 1, 1920.

The increase of \$1,938,744.71 in Interest on Funded Debt—Nonnegotiable Debt to Affiliated Companies (line No. 49) represents, principally, interest on deposits with Southern Pacific Company made by Southern Pacific Land Company, resulting from the sale of oil properties by the latter company to the Pacific Oil Company.

The increase of \$108,128.79 in interest on Unfunded Debt (line No. 50) is made up, principally, of interest on money borrowed before the proceeds from the sale of the oil properties were available, and of interest allowed on freight claims.

The decrease of \$68,737.18 in Amortization of Discount on Funded Debt (line No. 51) is the result of the expiration, during the year, of \$17,939,500 of Southern Pacific Company Five Per Cent Twenty-Year Convertible bonds into common stock, and of the retirement of \$1,841,000 of Southern Pacific Equipment Trust certificates maturing during the year, the unextinguished discount thereon having been charged to Profit and Loss.

The decrease of \$570,392.99 in Miscellaneous Income Charges (line No. 55) is the result, principally, of a decrease in the charges to that account for lap-over items of expenses appertaining to the period prior to January 1, 1918.

The dividends paid for 1921 were appropriated from the profit and loss surplus, and therefore do not appear in the income account. They amount to \$20,539,249.82, an increase, compared with dividends paid for 1920, of \$2,129,653.00. This increase is caused by the dividends paid on \$17,939,500 of capital stock issued this year against a like amount of Five Per Cent Convertible bonds retired, and a full year's dividends this year on capital stock issued last year against the retirement of such convertible bonds. The figures for this year include \$54.00 and those for last year \$316.00, representing dividends on stocks of Proprietary Companies held by the public.

The Southern Pacific Company does not take into its income the interest on advances made by it for the construction of new railroads, the interest included in its interest, or for the acquisition of new lines, until the principal of such advances, with interest, has been repaid either in cash, or in stocks and bonds of the companies. The interest included in the cost of such railroads is the amount authorized to be charged to such cost under the accounting regulations of the Interstate Commerce Commission.

On December 31, 1921, the principal of advances to the Southern Pacific Railroad Company of Mexico amounted to \$38,742,150.34. The interest accruing on these advances has not been taken into the income of the Southern Pacific Company.

*See 2nd column.

EQUIPMENT

All the equipment included in Southern Pacific Equipment Trust, Series E, mentioned in last year's report, has been received and placed in service. The tank steamer Tamahua, also mentioned in last year's report, was completed and placed in service November 22, 1921.

The following new equipment was completed at company shops during the year, or was under construction at company shops at the close of the year:

- 37 locomotives
- 281 freight-train cars
- 10 passenger-train cars
- 86 roadway service cars

The cost of this equipment will be about \$1,900,000.

THE SUIT INVOLVING THE RIGHT OF THE SOUTHERN PACIFIC COMPANY TO OWN THE STOCK OF THE CENTRAL PACIFIC RAILWAY COMPANY

In last year's report it was stated that this case was, after full argument, submitted in the Supreme Court of the United States on April 19, 1921, and by the Court taken under advisement. Two members of the Court were found to be disqualified to take part in the decision of the case. After the submission the number of the justices qualified to consider the case was still further reduced by the death of Chief Justice White. The case was then assigned for reargument on April 10, 1922, and was reargued at length. On May 25 a decision was handed down by the Supreme Court to the effect that the common control of the Central Pacific and other Southern Pacific lines, which originated more than half a century ago, was in violation of the Sherman Anti-trust Law of 1890, and the termination of such common control was declared. As the opinion of the Supreme Court was received on the day this Annual Report was to be placed in the hands of the printer, all that can be said at the present time is that it is believed from the usual procedure in such cases that time and opportunity will be afforded to carry out the decree of the Court with a minimum of injury and loss to the railroads concerned. The fact that the Interstate Commerce Commission is now engaged in regrouping the railroads of the country into a limited number of enlarged systems, under the Transportation Act of 1920, may require a delay until the Commission has determined its plan of consolidation for the railroads in the Western transcontinental region.

CONTROVERSY ARISING OUT OF THE OREGON & CALIFORNIA RAILROAD'S LAND GRANT

This is an accounting suit brought in 1917 by the United States seeking to offset against the compensation of \$2.50 per acre, due the Company for the unsold lands, moneys received by the Company, in excess of \$2.50 per acre, by reason of past sales, leases, and otherwise, as well as taxes levied since the forfeiture decision in 1913 and voluntarily paid by the Federal Government to the State of Oregon. The trial of this case is still going on.

STATUS OF ACCOUNTS WITH U. S. RAILROAD ADMINISTRATION

The status of the accounts of your company and its Proprietary Companies with the U. S. Railroad Administration, incident to the period of Federal operations, as booked to December 31, 1921, is shown in the combined balance sheet. The accounts as stated, however, do not include any charge either on account of under-maintenance during the period of Federal operations, or on account of the deficiency in material and supplies returned by the Director General at the end of Federal control.

Your company's claim for under-maintenance was filed on August 26, 1921, and a period claim covering the balance due your company on all accounts with the U. S. Railroad Administration, including claims for under-maintenance and for deficiency in material and supplies, was filed September 19, 1921.

The U. S. Railroad Administration has completed its investigation of all items in your company's claim except the item of under-maintenance and the item of material and supplies. Administration engineers and accountants have been investigating these two

BALANCE SHEET					
SOUTHERN PACIFIC COMPANY AND PROPRIETARY COMPANIES, COMBINED					
ASSETS—DECEMBER 31, 1921, COMPARED WITH DECEMBER 31, 1920, EXCLUDING OFFSETTING ACCOUNTS					
	December 31, 1921	December 31, 1920	Increase	Decrease	
INVESTMENTS					
Investment in road and equipment.....	\$1,055,929,559.56	\$1,023,128,725.51	\$32,800,834.05		
Improvements on leased railway property.....	4,365,285.80	4,307,067.10	58,218.70		
Sinking funds.....	16,869,768.59	15,894,531.86	775,236.73		
Deposits in lieu of mortgaged property sold.....	1,535,212.61	14,466,590.76		\$12,931,378.15	
Miscellaneous physical property.....(a)	13,559,989.73	13,785,215.46		225,225.73	
Investments in affiliated companies:					
Stocks.....	282,753,816.78	328,460,971.48		45,707,154.70	
Bonds.....	149,365,499.94	148,424,714.44	940,785.50		
Stocks & Bonds.....	10,728,251.70	11,267,951.70		539,700.00	
Advances.....	29,849,498.81	1,551,407.54	28,298,091.27		
Notes.....	121,240,766.21	107,281,536.58	13,959,229.63		
Other investments:					
Stocks.....	152,384.04	156,710.29		4,326.25	
Bonds.....	19,011,756.05	9,021,311.01	10,020,424.14		
Notes.....	1,740,558.99	2,032,491.77		291,932.78	
Advances.....	251,410.42	294,019.97		42,609.55	
Miscellaneous.....	251,972.90	2,295,565.08		2,043,592.18	
Total.....	\$1,707,465,492.13	\$1,682,308,841.45	\$25,156,650.68		
CURRENT ASSETS					
Cash.....	\$15,047,421.02	\$16,462,542.35		\$1,405,121.33	
Demands.....	4,044,702.97		\$4,044,702.97		
Special deposits.....	378,993.66	224,119.20	154,874.46		
Loans and bills receivable.....	11,665,085.31	59,268.34	11,605,816.97		
Traffic and car-service balances receivable.....	2,488,475.21	6,212,714.73		3,724,239.52	
Net balance receivable from agents and conductors.....	2,517,339.84	5,694,542.12		2,177,202.29	
Miscellaneous accounts receivable.....	9,379,727.37	17,160,402.64		7,780,675.27	
Material and supplies.....	36,039,533.02	40,263,359.08		4,223,826.06	
Interest and dividends receivable.....	2,555,337.97	2,269,418.00	285,919.97		
Rents receivable.....	237,191.65	1,653,751.30		926,559.65	
Other current assets.....	372,791.13	481,779.82		108,988.69	
Total.....	\$85,706,599.32	\$89,981,891.50		\$4,275,292.17	
ACCOUNTS WITH U. S. RAILROAD ADMINISTRATION					
Standard return.....	\$103,525,702.26	\$104,532,608.09		\$1,006,905.83	
Less received on account.....	74,125,000.00	74,125,000.00			
Balance due.....	\$29,400,702.26	\$30,407,608.09		\$1,006,905.83	
Additional compensation for use of additions and betterments completed during Federal control, cash and agents' and conductors' balances taken over January 1, 1918, revenues prior to January 1, 1918, and other corporate assets collected, etc.....	40,066,865.25	33,005,398.11	\$2,061,477.14		
Material and supplies, December 31, 1917.....	23,543,273.25	23,689,556.32		146,283.07	
Depreciation and other reserves.....	9,786,468.41	9,751,386.36	35,082.05		
Road and equipment retired and not replaced.....	1,084,612.75	1,127,779.82		43,167.07	
Total.....	\$104,391,360.93	\$102,981,717.88	\$1,409,643.05		
U. S. GOVERNMENT					
U. S. Government deficit in guaranty income.....	\$26,120,156.10	\$20,490,427.50	\$5,629,728.60		
DEFERRED ASSETS					
Working fund advances.....	\$233,861.06	\$193,392.66	\$40,468.40		
Insurance and other funds.....	10,352,522.90	15,369.00		\$16,360.00	
Other deferred assets.....		\$3,881,913.27		1,969,609.62	
Total.....	\$10,586,383.95	\$8,592,665.93	\$1,993,718.02		
U. S. GOVERNMENT					
Rents and insurance premiums paid in advance.....	\$145,197.26	\$202,706.30		\$57,509.10	
Discount on capital stock.....	3,988,600.00	3,988,600.00			
Discount on funded debt.....	1,957,900.33	2,400,820.37		442,920.04	
Unadjusted debits.....	10,831,362.16	22,345,597.62		12,514,235.46	
Securities issued or assumed—Unpledged.....(d)	6,985,175.00	6,985,175.00		6,750.00	
Securities issued or assumed—Pledged.....(d)	102,750.00	136,500.00		33,750.00	
Total.....	\$16,123,059.75	\$28,935,824.35		\$12,812,764.60	
Total Assets.....	\$1,950,293,052.18	\$1,933,291,368.70	\$17,001,683.48		
(a) The value of the unsold Central Pacific Railway Company land-grant lands is not included in the above statement of assets. (d) Excluded from total assets, and a corresponding amount excluded from outstanding funded debt, in accordance with regulations of the Interstate Commerce Commission.					
BALANCE SHEET					
SOUTHERN PACIFIC COMPANY AND PROPRIETARY COMPANIES, COMBINED					
LIABILITIES—DECEMBER 31, 1921, COMPARED WITH DECEMBER 31, 1920, EXCLUDING OFFSETTING ACCOUNTS					
	December 31, 1921	December 31, 1920	Increase	Decrease	
LIABILITIES					
Capital stock of Southern Pacific Company.....	\$344,380,905.64	\$326,441,405.64	\$17,939,500.00		
Capital stock of Proprietary Companies.....(d)	346,832,400.00	346,832,400.00			
Total stock outstanding.....	\$691,213,305.64	\$673,273,805.64	\$17,939,500.00		
Premium on capital stock of Southern Pacific Co.....	\$6,304,446.66	\$6,304,446.66			
Total.....	\$697,517,752.30	\$679,578,252.30	\$17,939,500.00		
LONG TERM DEBT					
Funded debt unmortgaged:					
Book liability.....	\$581,566,643.47	\$608,457,445.95		\$26,890,802.48	
Less held by or for companies.....	6,081,175.00	6,141,675.00		60,500.00	
Actually outstanding:					
Southern Pacific Company.....	\$139,183,060.00	\$159,158,160.00		\$19,975,100.00	
Proprietary Companies.....(e)	436,302,408.47	443,157,619.95		6,855,202.48	
Total funded debt.....	\$575,485,468.47	\$602,315,779.95		\$26,830,311.48	
Nonmortgaged debt to affiliated companies:					
Open accounts.....	25,004,008.35	47,792,526.82		22,788,518.47	
Total.....	\$600,489,476.82	\$650,108,297.77		\$49,618,820.95	
CURRENT LIABILITIES					
Loans and bills payable.....	\$3,923,967.27	\$5,000,000.00		\$1,076,032.73	
Traffic and car-service balances payable.....	14,832,407.42	28,517,472.11		13,685,064.69	
Audited accounts and wages payable.....	1,724,373.58	3,395,273.00		1,670,899.51	
Miscellaneous accounts payable.....	4,349,558.62	4,554,009.33		204,450.71	
Interest matured unpaid.....	5,254,992.49	4,985,119.58	\$571,872.91		
Dividends matured unpaid.....	16,213.92	29,213.92		13,000.00	
Funded debt matured unpaid.....	4,832,943.21	4,979,378.44		146,435.23	
Unmatured interest accrued.....	308,102.25	294,176.59	13,925.66		
Unmatured rents accrued.....	295,500.00	898,066.18		602,566.18	
Total.....	\$35,667,059.75	\$62,462,993.34		\$26,795,933.59	
ACCOUNTS WITH U. S. RAILROAD ADMINISTRATION					
Advances for additions and betterments.....	\$24,842,214.54	\$25,463,867.72		\$621,653.18	
Advances for expenses prior to January 1, 1918, and other corporate liabilities paid, etc.....	52,083,896.70	51,166,637.10	\$917,259.60		
Agents' and conductors' balances Feb. 29, 1920.....	24,212,972.01	24,061,815.39	151,056.62		
Federal material and supplies February 29, 1920.....					
Total.....	\$101,612,783.13	\$101,286,455.22	\$326,327.91		
DEFERRED LIABILITIES					
Other deferred liabilities.....	\$88,585.60	\$208,864.09		\$120,278.49	
UNADJUSTED CREDITS					
Tax liability.....	\$5,795,175.25	\$1,878,273.38	\$3,916,901.87		
Insurance and casualty reserves.....	1,877,021.70	3,182,504.69		\$1,305,782.99	
Operating reserves.....	5,619,793.83	4,329,251.64	1,277,542.19		
Accrued depreciation—Road.....(d)	1,643,796.86	1,489,080.76	154,716.10		
Accrued depreciation—Equipment.....	58,205,617.84	54,583,951.21	3,621,666.63		
Other unadjusted credits.....(e)	116,483,389.46	86,553,083.02	29,930,306.44		
Total.....	\$189,624,794.14	\$152,029,444.70	\$37,595,349.44		
CORPORATE SURPLUS					
Additions to property through income and surplus.....	\$1,773,020.11	\$1,575,921.24	\$197,098.87		
Funded debt retired through income and surplus.....	23,795,752.09	23,333,510.55	462,241.54		
Sinking fund reserves.....	12,570,482.63	11,602,666.84	967,815.79		
Appropriated surplus not specifically invested.....	3,818,177.83	3,818,177.83			
Total appropriated surplus.....	\$41,974,432.66	\$40,330,276.46	\$1,644,156.20		
Profit and loss—Balance.....	283,431,168.44	247,280,791.48	36,150,376.96		
Total corporate surplus.....	\$325,385,601.10	\$287,611,067.94	\$37,774,533.16		
Total liabilities.....	\$1,950,393,052.18	\$1,933,291,368.70	\$17,101,683.48		
(See Footnotes on Opposite Page)					

items for several months, and it is hoped that they will complete their investigation in the near future.

STATUS OF ACCOUNT WITH U. S. GOVERNMENT UNDER ITS GUARANTEE.

As stated in last year's report, the Interstate Commerce Commission, on October 18, 1920, issued an order requiring each carrier which had accepted the guaranty offered by the Government, to file a statement showing the amount due the carrier under the Government's guaranty as computed by the carrier. On April 25, 1921, your company filed a statement in accordance with such order and subsequently received partial payments, aggregating \$5,891,000, pending a complete review of the claim by the Commission.

On December 15, 1921, the Commission issued an order prescribing formulas for computing the maintenance allowance to be included in operating expenses for the guaranty period, fixing December 31, 1921, as the time as of which all accounts pertaining to the guaranty period should be closed, and requiring each carrier to file with the Commission a final claim covering the amount due from the Government under its guaranty. Final claim of your company, compiled in accordance with this order, was filed on March 2, 1922, and it is hoped that an early settlement will be obtained.

GENERAL

Dividends on the capital stock of your company were declared during the year, payable as follows:

1 1/2 per cent paid April 1, 1921..... \$5,125,198.99

1 1/2 per cent paid July 1, 1921..... 5,165,569.67

1 1/2 per cent paid October 1, 1921..... 5,165,713.58

1 1/2 per cent payable Jan. 3, 1922 5,165,713.58

Total..... \$20,629,195.83

Your Board announces with sorrow the death, on August 22, 1921, of Colonel Epes Randolph, President of the Arizona Eastern Railroad Company, and of the Southern Pacific Railroad Company of Mexico, who, for twenty-six years, served your companies with conspicuous ability and unwavering fidelity.

The Board has caused to be read in the minutes of its meetings a resolution reciting Colonel Randolph's long, faithful, and efficient service. Under the pension system put into effect January 1, 1902, there were carried on the pension roll at the end of the year 1,072 employees. The payments to pensioners for the year amounted to \$513,867.62, which is equivalent to six per cent per annum on an investment of \$8,564,000.00.

By order of the Board of Directors,
JULIUS KRUTTSCHNITT,
Chairman of the Executive Committee.

Trade Literature.

Fine Pump Bulletin.

Bulletin 248, superseding 245, is issued by the Dayton-Dowd Co., Quincy, Ill., presenting the latest information, with handsome illustrations, as to the centrifugal pumps of this manufacture. Besides detailed descriptions there is also a table showing capacity, speed and efficiency.

Steel Fabric for Road Work.

The National Steel Fabric Co., Union Arcade, Pittsburgh, Pa., have issued a fine, new catalog about National steel fabric which is termed "the protector of concrete roads." The booklet is beautifully illustrated and there are also numerous tables and specifications of great practical value to everyone interested in road construction.

Flexible Shafts and Equipment.

Flexible shafts and equipments manufactured by N. A. Strand & Co., Chicago, Ill., are pictured and described in their catalog No. 22, which is a finely prepared book of 28 pages giving full particulars about the many advantages of their products. The three speed motor counter shaft drive which they originated is applied to these flexible shafts and they are fully guaranteed.

Turntable for Trucks.

An illustrated circular issued by the Blaw-Knox Company, Pittsburgh, Pa., shows the turntable manufactured by them in its most highly developed form. Improvements have been made to it which, it is remarked, make it practically a new device. This turntable is for the use of road contractors to prevent damage to the subgrade when turning material laden trucks. It is placed at one side of the road and outgoing trucks can pass at all times.

FOOTNOTES TO TABLE OF LIABILITIES

(a) The outstanding capital stock and funded debt include capital stocks and funded debt of Proprietary Companies of the par value of \$346,770,200.00 and \$114,120,417.57, respectively, a total of \$460,890,617.57, which securities are owned by the Southern Pacific Company or by Proprietary Companies, or are held in sinking funds of Proprietary Companies. The cost of these securities is included in the investments shown under "Investments in affiliated companies." Of the said amount, stocks of the par value of \$249,653,161.00, which stand charged on the books at \$232,932,667.41, are pledged against the issue of Southern Pacific Company stock and bonds. (d) Represents accrued depreciation on electric power plants and substations, general office building at San Francisco, wood preserving works, Sacramento rolling mill, oil storage plants, grain elevators, and similar facilities. (e) Represents, principally, interest on construction advances which have not been repaid, as explained in the last paragraph but one under the heading, "Income Account."

Air Drills for Light Work.

The "Thor" Pigmy pneumatic drills for light work are described with specifications in a small folder issued by the Independent Pneumatic Tool Co., 600 W. Jackson Boulevard, Chicago. They are made in three sizes 1/4, 1/2 and 3/4-inch capacity, respectively, and weigh from five to six pounds. They do drilling, reaming, wood boring, screw driving, cleaning, polishing, or remove scale, paint or rust.

New Shingle Designs.

Octo-Strip shingles and Everlasting Giant shingles are two recent additions to the Barrett line of Everlasting roofings, making it very complete with four styles of mineral surfaced shingles and two roll roofings, one of which is mineral surfaced and the other plain. These two products are described and illustrated in folders issued by the Barrett Company of New York and many other cities.

Church Furniture Catalog.

The Fudde & Weis Mfg. Co., whose main office and factory are at Jackson, Tenn., have issued their large and handsome catalog No. 6 describing and illustrating their line of high grade church furniture. This is made in a variety of patterns tastefully designed and substantially executed. Pictures are also shown of several church buildings in which installations of this furniture have been made. The company also makes bank furniture.

Steel Paving Guards.

The W. S. Godwin Co., Inc., 12 E. Lexington St., Baltimore, Md., have issued a fine bulletin about street railway paving with steel paving guards which it is remarked, "guarantee perfect paving in the railway area." A clear photographic reproduction shows a view on East Capitol St., Washington, D. C., where these guards are installed and where the paving is beautifully smooth and even. Other illustrations show how the guards are applied.

Electrically Run Printing Presses.

The Sprague system of electric motor drive and control for newspaper printing presses is described under the caption "Reliable and Safe" in Bulletin 48,717 from the Sprague Electric Works of the General Electric Co., 527 W. 34th St., New York. Fine illustrations show applications of this mode of drive and control, the numerous advantages of which are interestingly described. There are separate pictures of the different parts of the system.

Copper Wire Screen Cloth.

The New Jersey Wire Cloth Co., Trenton, N. J., have issued a booklet and a folder relating to their "Jersey" copper screen cloth for window and door screens, etc., to effectually keep out insects. The advantages of copper wire in the manufacture of screen are fully told and the folder contains an actual sample of the screen cloth, part in bright finish and part in dark finish. This is made in the 16 mesh, regular grade. There are several illustrations.

Double Pumping Outfit.

The Ralph B. Carter Co., 152 Chambers St., New York, have recently developed the double "Humdinger" pumping outfit which is illustrated and described with detailed specifications in their Bulletin No. 101. The bulletin is compact but gives full particulars including diagrams.

Industrial Equipment Described.

Nathan Klein & Co., 208 Centre St., New York, have issued a new catalog of their standard lines of industrial equipment including anvils, vises, forges, scales, angle and tee cutters, slitting shears, reducing gears, hoists, welding outfits, drills, air compressors, portable cranes, electric blowers and other electrical instruments, lathe chucks, motors, gasoline engines, grinders, lathes, milling machines, swing saws, band saws, etc., etc. The illustrations and descriptions are complete and accurate.

New Pumping Unit.

Leaflet No. 2061, of the Allis-Chalmers Manufacturing Co., Milwaukee, Wis., gives full particulars, with illustrations, concerning their 1 1/2-inch type "SS" centrifugal pumping unit which has been developed to meet a demand for a high grade, low cost pump to handle small quantities of water against medium and low heads. It is designed to handle liquids which do not contain gritty substances. It will supply water for bottle washers, irrigation work, air conditioning machines, contractors, or domestic house supply; also pumping brine for ice-making machinery and cooling water to electric transformers and electric furnaces.

An Artistic Production.

"Built to Endure" is an unusually attractive and interesting book issued by the Koehring Company, manufacturers of concrete mixers, locomotive cranes, rotary graders, bar cutters and benders, Milwaukee, Wis. This publication, prepared by Philip Koehring, displays, with descriptions, comparative examples of notable ancient and modern construction embodying the element of permanency. The pictures are etchings in color by W. M. Young. Famous structures erected in distant past ages and other modern concrete structures are shown. The cover is most artistic, fitting perfectly the general atmosphere of the book. The Commercial Art Engraving Co., of Chicago, co-operated in designing and printing the work.

The Coal Industry in Kentucky. By Willard Rouse Jillson. Frankfort, Ky. The State Journal Company, 1922.

In this book of less than a hundred pages Dr. Jillson, who is Director and State Geologist of the Kentucky Geological Survey, presents with interesting illustrations a historical sketch of coal mining operations in Kentucky. It is a comprehensive story although brief and the references to the work of early explorers who in the eighteenth century noted the common occurrence of coal in the mountains of the eastern part of Kentucky are particularly entertaining as are the chapters relating to the modern development of the huge fuel deposits upon an enormous scale.

Excerpts from the Annual Report of the Seaboard Air Line Railway Company

Fiscal Year Ended Dec. 31st, 1921

INCOME ACCOUNT FOR THE YEAR ENDED DECEMBER 31, 1921, COMPARED WITH YEAR ENDED DECEMBER 31, 1920.

	1921	1920	Decrease
Gross Revenue.....	\$42,844,933.30		
Operating Expenses, Taxes, Uncollectible Railway Revenues and Equipment and Joint Facility Rents—Net.....	40,782,561.57		
Net Railway Operating Income*.....	\$2,062,371.73	\$2,481,981.18	
Compensation Accrued—Federal Control Period†.....	1,473,270.49	1,153,327.48	
Government Guaranty (Six months ended August 31, 1920, under Section 209, Transportation Act, 1920).....		3,460,012.43	
Total.....	\$3,535,651.22	\$7,095,321.09	\$3,559,670.87
Other Income.....	1,453,680.13	423,884.98	1,029,804.77
Gross Income.....	\$4,989,340.35	\$7,519,215.45	\$2,529,875.10
Rents and Other Charges.....	81,410.36	153,342.96	71,932.60
Annual Allowment of Discount on Securities.....	139,171.35	139,100.23	71.12
Applicable to Interest.....	\$4,768,758.64	\$7,226,772.26	\$2,458,013.62
Fixed Interest Charges.....	5,201,298.83	5,745,705.50	544,406.87
Balance.....	Dr. \$432,539.99	\$1,481,066.76	\$1,913,606.75
Interest Adjustment Mortgage (Income) Bonds.....	Cr. \$208,333.34	1,250,000.00	1,458,333.34
Net Income.....	Dr. \$224,206.65	\$231,066.76	\$45,273.41

*Includes the same accounts that were used in determining the Standard Return; 1920 figures are for period September 1—December 31, 1920.

†1921 figures are an accrual of estimated additional compensation for the entire period of Federal Control; 1920 figures are an accrual for January and February.

‡Reversal of November and December 1920 accrual.

TABLE No. 2—GENERAL BALANCE SHEET, DECEMBER 31, 1921.

ASSETS.

INVESTMENT IN ROAD AND EQUIPMENT:

Road.....	\$165,432,290.73	
Equipment.....	27,806,063.88	
General Expenditures.....	572,747.24	\$193,811,101.85
Sinking Funds.....		177.04
Deposits in Lieu of Mortgaged Property Sold.....		745,771.71
Miscellaneous Physical Property.....		752,493.66
Investments in Affiliated Companies:		
Stocks—Pledged.....	2,121,454.31	
Stocks—Unpledged.....	292,139.22	
Bonds—Pledged.....	739,850.00	
Bonds—Unpledged.....	223,551.78	
Notes.....	505,102.03	
Advances.....	2,504,610.26	6,613,016.05
Other Investments:		
Stocks—Pledged.....	26.00	
Stocks—Unpledged.....	83,833.82	
Bonds—Pledged.....	739,850.00	
Bonds—Unpledged.....	13,000.00	
Notes.....	70,122.99	
Advances.....	185,673.10	
Miscellaneous.....	63,000.00	1,155,505.91
Total.....		203,078,066.22

CURRENT ASSETS:

Cash with Treasurer.....	\$ 1,771,389.16	
Cash in Transit.....	682,798.42	2,455,187.59
Special Deposits—Cash with Fiscal Agents and Trustees.....	897,119.89	
Loans and Bills Receivable.....	24,265.92	
Traffic and Car Service Balances Receivable.....	893,523.58	
Net Balances Receivable from Agents and Conductors.....	194,427.48	
Miscellaneous Accounts Receivable: Individuals and Companies.....	994,287.32	
United States Government.....	145,263.03	
Other Companies for Claims.....	116,750.72	1,354,281.07
Material and Supplies.....	4,101,904.27	
Interest and Dividends Receivable.....	665,617.55	
Rents Receivable.....	8,167.71	
United States Railroad Administration.....	8,536,291.67	
Other Current Assets.....	526,669.43	
Total.....		19,657,456.16

DEFERRED ASSETS:

Working Fund Advances.....	297,091.76	
United States Railroad Administration.....	5,851,441.89	
Other Deferred Assets.....	676,028.39	
Total.....		6,824,562.04

UNADJUSTED DEBITS:

Insurance Premiums Paid in Advance.....	25,284.90	
Discount on Funded Debt.....	4,477,535.66	
Claims in Suspense.....	389,771.89	
United States Government.....	3,154,588.42	
United States Railroad Administration.....	5,532,498.06	
Other Unadjusted Debits.....	1,077,942.10	
Total.....		14,657,641.03

GRAND TOTAL.....

\$244,217,725.45

CAPITAL STOCK:

Common Capital, Stock Issued.....	\$40,041,000.00	
Less: Pledged as Collateral.....	3,021,000.00	\$37,019,400.00
Preferred 4-2% Capital Stock Issued.....	25,000,000.00	
Less: Pledged as Collateral.....	1,105,000.00	23,894,100.00
Preferred 6% Capital Stock Issued.....	2,273,100.00	
Less: Pledged as Collateral.....	2,235,000.00	
In Treasury.....	800.00	37,300.00
Total.....		\$69,950,800.00

FUNDED DEBT UNMATURED:

Equipment Obligations.....	10,578,411.47	
Less: Pledged as Collateral.....	6,407,411.47	
In Treasury.....	730,000.00	3,441,000.00
Mortgage Bonds Proprietary Companies.....	39,609,000.00	
Less: Pledged as Collateral.....	2,950,000.00	36,659,000.00
S. A. L. Railway First Mortgage Bonds.....	39,775,000.00	
Less: Pledged as Collateral.....	27,000,000.00	12,775,000.00
S. A. L. Railway Refunding Mortgage Bonds.....	56,011,000.00	
Less: Pledged as Collateral.....	36,061,000.00	19,950,000.00
S. A. L. Railway Company First and Consolidated Mortgage Bonds Series "A".....	44,721,000.00	
Less: Pledged as Collateral.....	16,943,000.00	
In Treasury.....	500.00	27,777,500.00
Collateral Trust Bonds.....		
S. A. L. Railway Company Three Year 7% Extended Secured Gold Notes.....		1,000,000.00
Income Bonds:		
S. A. L. Railway Adjustment Mortgage Bonds.....		25,000,000.00
Miscellaneous Obligations: Secretary of Treasury of United States—Notes.....		8,698,400.00
Total.....		134,700,900.00
Non-Negotiable Debt to Affiliated Companies.....		299,480.72

CURRENT LIABILITIES:

Loans and Bills Payable.....	1,042,500.00	
Traffic and Car Service Balances Payable.....	1,229,218.84	
Audited Accounts and Wages Payable:		
Audited Vouchers Unpaid.....	3,476,528.60	
Wages Unpaid.....	923,588.92	4,400,117.52
Miscellaneous Accounts Payable: Individuals and Companies.....	188,332.24	
Agents Traffic Drafts.....	162,292.70	
Claim Authorities.....	85,550.39	436,175.33
Interest Matured Unpaid:		
Funded Debt.....	782,998.25	
Equipment Trust Obligations.....	16,967.04	799,965.29
Dividends Matured Unpaid.....		9.00
Funded Debt Matured Unpaid.....		97,000.00
Unmatured Interest Accrued:		
Funded Debt.....	1,156,800.55	
Equipment Trust Obligations.....	54,977.70	
Unfunded Debt.....	5,635.98	1,217,416.23
Unmatured Rents Accrued.....		120,394.30
United States Railroad Administration.....		7,505,000.00
Other Current Liabilities.....		260,690.04
Total.....		17,108,486.55

DEFERRED LIABILITIES:

United States Railroad Administration.....	67,129.63	
Other Deferred Liabilities.....	387,633.26	
Total.....		454,762.89

UNADJUSTED CREDITS:

Railway Tax Accruals.....	589,270.37	
Operating Reserves.....	1,197,863.57	
Accrued Depreciation—Equipment.....	5,765,699.93	
Reserve for Outstanding Stock of Proprietary Companies.....	19,726.41	
United States Railroad Administration.....	16,047,853.52	
Other Unadjusted Credits.....	1,132,140.88	
Total.....		24,752,554.68

CORPORATE SURPLUS:

Additions to Property through Income and Surplus.....	183,336.61	
Funded Debt Retired through Income and Surplus.....	3,896.12	
Profit and Loss—Surplus.....	5,762,507.88	
Total.....		5,950,740.61
Grand Total.....		\$244,217,725.45

Accumulated and unpaid interest on Adjustment Mortgage (Income) Bonds amounting to \$1,458,333.34 and payable out of future income, or otherwise, or at the maturity of the bonds; and the company's claim against the United States Railroad Administration for final settlement for compensation, under-maintenance, materials and supplies, etc., arising out of Federal Control, are not comprehended in the above balance sheet.

This Company is liable as a Guarantor of the following Securities and Obligations: Athens Terminal Company First Mortgage.....\$ 100,000.00 Birmingham Terminal Company First Mortgage—Seaboard proportion 1/8 of..... 1,940,000.00 Fruit Growers Express Company—Payments..... 654,074.99 Southern Express Company—Payments..... 185,000.00 Jacksonville Terminal Company First Mortgage—Seaboard proportion 1/3 of..... 400,000.00 Jacksonville Terminal Company First and General Mortgage—Seaboard proportion 1/4 of..... 2,100,000.00 Macon, Dublin and Savannah Railroad Company First Mortgage..... 1,329,000.00 Raleigh and Charleston Railroad Company Prior Lien and Consolidated Mortgage.....\$ 550,000.00 Richmond-Washington Company Collateral Trust Mortgage—Seaboard proportion 1/6 of..... 10,000,000.00 Savannah and Statesboro Railway Company First Mortgage..... 185,000.00 Seaboard Equipment Company—Payments..... 400,000.00 Southeastern Investment Company—Note..... 185,000.00 Tampa Northern Railroad Company—Note..... 85,000.00 Tampa and Gulf Coast Railroad Company First Mortgage..... 750,000.00 Wilmington Railway Bridge Company Consolidated Mortgage—Seaboard proportion 1/2 of..... 217,000.00

CORPORATE FINANCING

F. S. Smithers & Company

ESTABLISHED 1857

Members New York Stock Exchange

19 Nassau Street

New York

MARYLAND TRUST COMPANY

BALTIMORE

Transacts a General Trust and Banking Business

Correspondence and interviews invited

CAPITAL, \$1,000,000

Investment Bankers

are offered

Power and Light Securities

issued by companies with long records of substantial earnings.

We extend the facilities of our organization to those desiring detailed information or reports on any of the companies with which we are identified.

Electric Bond and Share Company

(Paid-up Capital and Surplus, \$28,000,000)

71 Broadway

New York

MARINE BANK & TRUST COMPANY

New Orleans, Louisiana

Capital and Surplus - \$2,300,000.00

General Banking - Domestic and Foreign

Correspondence Invited

We Buy Bonds

City, County, School and Road, from
Municipalities and Contractors

WRITE

THE PROVIDENT SAVINGS BANK & TRUST CO.
CINCINNATI OHIO

WE BUY MUNICIPAL BONDS

Write us if your community is contemplating issuing bonds or has bonds to sell.

THE W. H. SILVERMAN CO.

309 Mercantile Library Bldg.,

Cincinnati, Ohio

WE BUY MUNICIPAL BONDS

We are interested in the purchase of Southern Municipals including road, school, county, drainage and levee bonds.

M. W. ELKINS & CO.

Southern Trust Bldg.

Little Rock, Ark.

Seasongood & Mayer

Ingalls Bldg.,

Cincinnati, O.

BUY County City School BONDS

Write us if you have any for sale.

NOTICE TO CONTRACTORS

We want to buy bonds issued by cities, towns, counties, school, road or drainage districts that you may be able to take in exchange for work. Address us at our nearest office.

W. L. SLAYTON & CO.

New Orleans, La.

Toledo, Ohio

Chicago, Ill. Glasgow, Mont.

Tampa, Fla.

TODD & McCOLLOUGH

Members of

AMERICAN SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS

Auditing, Cost and Accounting Systems,
and Federal Tax Service.

No. 328 South Tryon St.

Charlotte, N. C.

WE BUY

Municipal Bonds

THE ROSENSTIEL-ELLIS COMPANY

FIRST NATIONAL BANK BUILDING

CINCINNATI, O.

Cooley & Marvin Co.

Engineers

Accountants

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Boston

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Contractors and Municipal Officials

We are always in the market

TO PURCHASE

Good municipal bonds issued by cities, towns, counties
and school districts

BREED, ELLIOTT & HARRISON

322 WALNUT ST.

CINCINNATI, OHIO

YOUNG & SELDEN COMPANY

MANUFACTURING

Bank and Commercial Stationers

BALTIMORE, MD.

Re-roof for the last time—

Right over the old shingles

LAST year people who needed new roofs, saved thousands of dollars by re-roofing the Johns-Manville way.

This year, from all indications, even more people are going to save even more money.

So if you are beginning to doubt the ability of the old roof to protect your home, consider the Johns-Manville method of "Re-roofing for the last time."

Simply—it is this:—Lay Johns-Manville Asbestos Shingles right over the old shingles. Don't tear off the old roof.

Just see what you save!

You save the cost of ripping off the old roof.

You save time.

You save your lawns and shrubbery from possible injury by falling shingles.

Just see what you get!

You get double roof protection. The old roof under the new both protects and insulates.

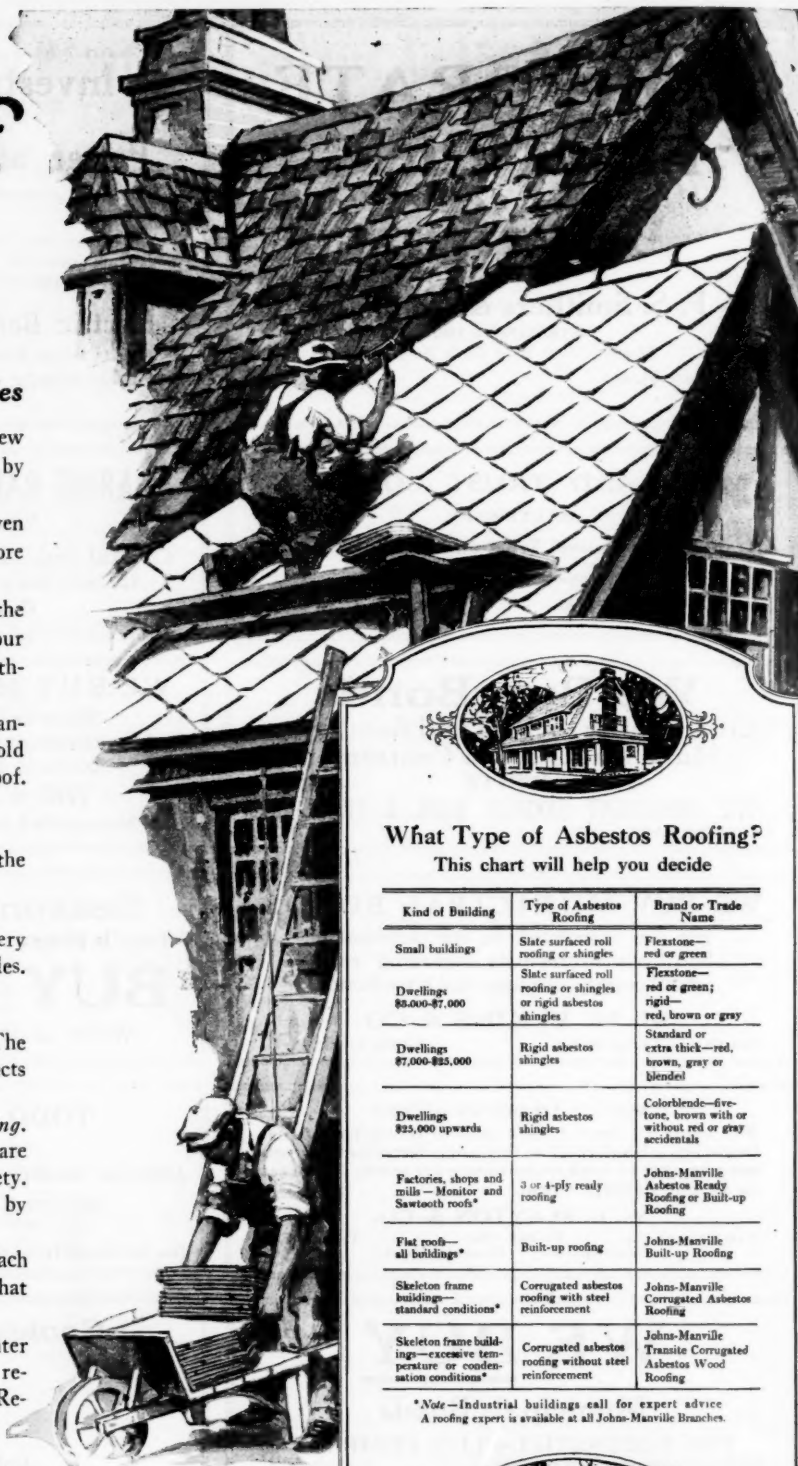
You get a fire-proof roof covering. Johns-Manville Asbestos Shingles are noted for their unqualified fire-safety. They are given the highest rating by Underwriters' Laboratories, Inc.

You get a permanent roof. Each shingle is a solid slab of permanence that toughens with age.

See your roofing dealer or carpenter about this new, economical way of re-roofing, or send for our booklet, "Re-roofing for the last time."

JOHNS-MANVILLE Inc.
Madison Avenue, at 41st Street, New York City
Branches in 56 Large Cities
For Canada: CANADIAN JOHNS-MANVILLE CO., LTD., Toronto

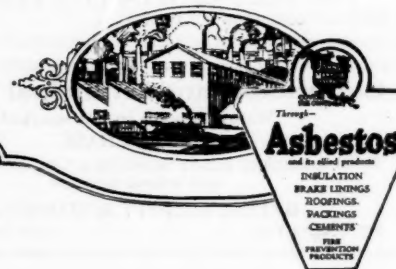
JOHNS-MANVILLE Asbestos Shingles



What Type of Asbestos Roofing? This chart will help you decide

Kind of Building	Type of Asbestos Roofing	Brand or Trade Name
Small buildings	Slate surfaced roll roofing or shingles	Flexstone—red or green
Dwellings \$5,000-\$7,000	Slate surfaced roll roofing or shingles or rigid asbestos shingles	Flexstone—red or green; rigid—red, brown or gray
Dwellings \$7,000-\$25,000	Rigid asbestos shingles	Standard or extra thick—red, brown, gray or blended
Dwellings \$25,000 upwards	Rigid asbestos shingles	Colorblende—five-tone, brown with or without red or gray accidentals
Factories, shops and mills—Monitor and Sawtooth roofs*	3 or 4-ply ready roofing	Johns-Manville Asbestos Ready Roofing or Built-up Roofing
Flat roofs—all buildings*	Built-up roofing	Johns-Manville Built-up Roofing
Skeleton frame buildings—standard conditions*	Corrugated asbestos roofing with steel reinforcement	Johns-Manville Corrugated Asbestos Roofing
Skeleton frame buildings—excessive temperature or condensation conditions*	Corrugated asbestos roofing without steel reinforcement	Johns-Manville Transite Corrugated Asbestos Wood Roofing

*Note—Industrial buildings call for expert advice. A roofing expert is available at all Johns-Manville Branches.



Effort to Break a 50-Year Contract.

Houston, Tex., June 10—[Special.]—In the Federal court here the Central Union Trust Company of New York, trustee for the bondholders having a decree of foreclosure against the International & Great Northern Railroad, seeks an injunction to restrain the city of Palestine, Tex., and Anderson County, from interfering with the proposed removal of the general offices and shops of the road from Palestine. It is asserted in the petition that the value of the property is decreased more than \$3,000,000 because they are located there and that an annual loss of \$500,000 is entailed in operation for the same reason. Continuance of the general offices and shops at Palestine it is further said interferes with the reorganization plans.

Several years ago Palestine took the matter into the Texas courts and the supreme court upheld the contention that there is a binding contract for the location and perpetual maintenance of the general offices and shops in that town. Now the road claims that the agreement was made with private citizens of Palestine, that it was entered into fifty years ago, and that it should not be binding at this time.

It is expected that should the International & Great Northern be taken over by the Missouri, Kansas & Texas system the shops and offices will be merged with those of the latter road at Dallas.

Factory Begun for Mirror Manufacture.

Raleigh, N. C., June 12—[Special.]—The Union Mirror Company has begun work on a factory at Lenoir, Caldwell County, an important furniture manufacturing town in the mountain foothills of North Carolina. F. H. Coffey is president, W. H. Hill, secretary-treasurer. It is the purpose to turn out half a million mirrors annually and the plant will begin operations in 120 days. The stockholders embrace practically all the case-goods manufacturers in that zone. These will use nearly all the output and the surplus will be sold to non-stockholders.

Architects Selected for 7 Story Hotel.

Greenville, S. C., June 10—[Special.]—G. Lloyd Preacher & Co., architects of Augusta and Atlanta, have been selected to prepare plans for a seven story, 150 room hotel to be erected here. It is said that local capitalists together with others from Atlanta will finance the project.

Freight Service Resumed—Extension Plan.

Repairs on the Tennessee, Alabama & Georgia Railroad have been sufficiently advanced to permit the operation of freight trains and regular freight service on the line from Chattanooga, Tenn., to Gadsden, Ala., is now given to shippers. It is expected that passenger service will also soon be resumed. All traffic was stopped April 23 to permit of the rehabilitation of the physical structure of the line, which included repairs to the tunnel at Pigeon Mountain.

C. E. James, of Chattanooga, who bought the road at the receiver's sale, proposes to extend it so that its trains can go through to Birmingham, and application has been made on behalf of the company to the Interstate Commerce Commission for permission to issue \$400,000 of common stock and an equal amount of preferred stock to finance the extension. According to reports from Gadsden the new construction will doubtless be from there to Odenville, Ala., on the Seaboard Air Line, a distance of about 25 miles.

Kentucky Geological Survey.

The Sixth Geological Survey of Kentucky by Dr. Willard Rouse Jillson, Director of the State Geological Survey and State Geologist, gives a complete report of the several mineral resources and general geological investigations undertaken and completed there during the years 1920 and 1921. It is a volume of nearly 300 pages abundantly illustrated concerning the mining and oil well developments of the state. There are also several maps which will be appreciated by everyone interested in either coal or petroleum. The book is bound in blue cloth.

Contract Let for \$225,000 Apartment Building.

J. M. Dunn & Son, Knoxville, Tenn., have been awarded the contract for erection of a \$225,000 apartment house for the General Building & Finance Co., after plans by Barber & McMurtry, architects.

Earle St. Baptist Church, Greenville, S. C., will receive bids June 24 for a new structure 160 feet long and from 50 to 80 feet wide, after plans by Jones & Trott, Inc., architects, of Greenville.

Bids will be received on June 27 for erection of a Public Library at Shreveport, La., estimated to cost \$170,000. J. P. Annan, 1319 Fairfield Ave., Shreveport, is the architect.



PROPOSALS

BOND ISSUES
BUILDINGS
PAVING
GOOD ROADS

Bids close July 11, 1922.

TREASURY DEPARTMENT. Office of Supervising Architect, Washington, D. C., June 6, 1922.—**SEALED PROPOSALS** will be opened in this office at 3 p. m., July 11, 1922, for the construction, including mechanical equipment of the United States Post Office at Gilmer, Tex. "Proposals will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract, and who have established a record for expedition on contracts of similar character and magnitude. The fact that any concern obtains a set of plans and specifications from any source whatever and submits a bid shall not constitute a waiver of the foregoing stipulations." Drawings and specifications may be obtained from the custodian of the site at Gilmer, Tex., or at this office in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

RATE: 35 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 4 P. M. Monday.

DAY LETTER: When too late to send copy by mail to reach us by 4 P. M. Monday, forward by day letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—35 cents per line per insertion.

Bids close July 3, 1922.

PROPOSALS FOR wire rope, steel cable, electric transmitting and recording systems, windmills, steel bars, track spikes, ferromanganese, chain links, machetes, red-rubber air hose, varnished cambric tape, typewriter ribbons, ships' logs, cheesecloth, laundry soap, asphalt varnish, and horsehoof glue. —Sealed proposals will be received at the Office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 o'clock A. M., July 3, 1922, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and information relating to this Circular (1485) may be obtained from this office or the offices of the assistant purchasing agents, 24 State St., New York City; 611 Gravier Street, New Orleans, La.; and Fort Mason, San Francisco, Cal.; also from the United States engineer offices in the principal cities throughout the United States.—A. L. Flint, General Purchasing Officer.

Bids close July 10, 1922.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., June 10, 1922. SEALED PROPOSALS will be opened in this office at 3 P. M., July 10, 1922, for construction of the United States Post Office and Custom House at Apalachicola, Fla. Drawings and specifications may be obtained from the Custodian of the site at Apalachicola, Fla., or at this office in the discretion of the Supervising Architect. Jas. A. Wetmore, Acting Supervising Architect.

OFFICE OF THE CONSTRUCTING QUARTERMASTER, ABERDEEN PROVING GROUND, MD. Sealed proposals will be received at this office until 10:00 A. M., Eastern Standard Time, June 19, 1922, and then opened for the construction of the following items at the Airship Field, Aberdeen Proving Ground, Md.: Heating System, Septic Tank, Erection of Mooring Mast, Steel Stairway, and Concrete Floor. Plans and specifications may be obtained at this office upon the deposit of \$10.00, which will be refunded upon the return of same in good condition. The right is reserved to accept any or reject all bids for this project.

Bids close June 27, 1922.

ARMY MEDICAL SCHOOL, WALTER REED GENERAL HOSPITAL, D. C. Sealed proposals in triplicate will be received at the office of the Constructing Quartermaster, Washington, D. C., Room 2306 Munitions Building, 19th & B Streets, until 2 P. M., June 27, 1922, and then opened for the construction of an Army Medical School. Plans and specifications may be obtained from the above office upon the deposit of \$50. One set on exhibition at each of the following stations: Office of Constructing Quartermaster, 39 Whitehall Street, New York City; Office Quartermaster Supply Officer, Chicago; General Intermediate Depot, 1819 West Pershing Road, Chicago, Ill.; Office of Constructing Quartermaster, Frankford Arsenal, Philadelphia, Pa.

Bids close July 1, 1922.

PROPOSALS FOR RUBBER HOSE—Office, Mississippi River Commission, 1st and 2nd Districts, Customhouse, Memphis, Tenn.—Sealed proposals for furnishing and delivering Rubber Hose will be received here until 11 a. m., July 1, 1922, and then opened. Further information on application.

Bids close July 7, 1922.

United States Engineering Office, Baltimore, Md. Sealed proposals will be received here until 1 P. M., July 7, 1922, and then opened, for dredging Wicomico River, Maryland. Further information on application.

Bids close July 10, 1922.

\$210,000 6% School Bonds

Minden, La.

The Webster Parish School Board of Minden, Webster Parish, Louisiana, acting as the governing authority for Minden School District No. 6, of Webster Parish, Louisiana, offers school bonds for sale for said District, TWO HUNDRED AND TEN (210) in number, payable in installments annually in denominations of \$1000, each in serial form to run for a period of 10 years, at the rate of six per cent per annum interest payable annually, secured by special tax to be levied under Act 46 of the Legislature of the State of Louisiana, of Special Session of 1921, for which sealed bids will be received by the Webster Parish School Board to be opened at a meeting of the Board at the Court House in Minden, Louisiana, at 2 o'clock P. M., July 10, 1922, at which time and place the bids will be passed upon. Board reserves the right to reject any and all bids. No bid will be considered unless accompanied by a deposit of five per cent of the amount of the bid in certified bank check as a guarantee of good faith and subject to collection as a forfeit, in the event the depositor is successful bidder and does not comply with the terms and conditions of his bid.

For information apply to E. S. Richardson, Superintendent and Secretary of the School Board at Minden, La.

Signed this 9th day of June, 1922.

W. C. STEWART,

President of School Board.

E. S. RICHARDSON,

Secretary of School Board.

Bids close July 18, 1922.

\$98,000 5% Municipal Bonds

Quincy, Fla.

The City of Quincy, Fla., offers its 5% interest bearing bonds to the amount of \$98,000.00, serial bonds, \$2,000.00 of same being payable and redeemable annually in sequence of their numbers beginning with number One (1); \$40,000.00 being paving bonds, \$40,000.00 City Water and Electric Light bonds; \$14,000.00 of Water Main bonds and \$4,000.00 being Sewer Main bonds, and sealed bids for the entire amount, or for paving bonds, city Electric Light and Water bonds Sewer Main bonds, or for Water Main bonds separately will be received at the office of J. P. Smith, City Clerk, up to July 18, 1922, at 10 o'clock A. M.

A certified check or Cashier's check for 5% of the amount bid is required with each bid, and the right to reject any and all bids is reserved by the City.

Under the City Charter Bonds cannot be sold below par.

W. E. SHELTER,

President of City Council of the
City of Quincy, Fla.J. P. SMITH,
City Clerk.

Bids close July 10, 1922.

\$15,000 6% Bonds

Rowland, N. C.

Sealed bids will be received by the Town of Rowland, North Carolina, for Fifteen Thousand Dollars, Town of Rowland, six per cent coupon bonds until 12 o'clock M., July 10, 1922, at the office of the Mayor of the Town of Rowland, North Carolina. Each bid must be accompanied by a certified check for an amount equal to two per cent of the par value of the bonds as evidence of good faith. The Town of Rowland reserves the right to reject any and all bids.

Dated this 8th day of June, 1922.

J. E. LYTCH, Mayor,

O. P. CHITTY,

Town Clerk and Treasurer.

\$51,000 Water Bonds**\$74,000 Public Improvement Bonds**

Southern Pines, N. C., April 7, 1922.

Sealed proposals will be received by the Board of Commissioners of the Town of Southern Pines, N. C., at the Mayor's office in said Town, until July 1st, 1922, at 12:00 o'clock noon, when they will be publicly opened, for the purchase of \$51,000 Water Bonds and \$74,000 Public Improvement Bonds of said Town. Said bonds will be dated July 1, 1922, will bear interest at the rate of six per centum (6%) per annum, payable semi-annually on July 1st and January 1st, and will be of the denomination of \$1000 each. The Water Bonds will mature serially, one bond on July 1st in each of the years 1925 to 1949, inclusive, and two bonds on May 1st in each of the years 1950 to 1962, inclusive. The public Improvement Bonds will mature serially, two bonds on May 1st in each of the years 1925 to 1929, inclusive, four bonds on May 1st in each of the years 1930 to 1940, inclusive, and five bonds on May 1st in each of the years 1941 to 1944, inclusive. All of the bonds will be coupon bonds, with privilege of conversion into fully registered bonds. Principal and interest will be payable in gold coin of the United States, at The National Park Bank, in the City of New York, and interest on registered bonds will, at the option of the holder, be paid in New York Exchange.

Proposals must be enclosed in a sealed envelope marked on the outside "Proposal for Bonds" and addressed to R. L. Chandler, Town Clerk, Southern Pines, N. C. Bidders must deposit with said Town Clerk before making their bids, or present with their bids, a certified check drawn to the order of the Town of Southern Pines, upon an incorporated bank or trust company, or a sum of money for or in an amount equal to two per centum (2%) of the face amount of bonds bid for, to secure the municipality against any loss resulting from a failure of the bidder to comply with the terms of his bid. Purchasers must pay accrued interest from the date of the bonds to the date of delivery. The bonds cannot be sold at less than par and accrued interest.

Successful bidders will be furnished with the opinion of Messrs. Reed, Dougherty & Hoyt, of New York City, that the bonds are valid and binding obligations of the Town of Southern Pines.

R. L. CHANDLER,

Town Clerk.

Bids close June 20, 1922.

\$1,750,000 City Bonds

Richmond, Va., June 1, 1922.

Sealed bids will be received by the Committee on Finance of the Council of the City of Richmond, Va., in Room 314, in the City Hall, until 8 o'clock P. M., on Tuesday June 20th, 1922, for the purchase of the following described bonds of said City, viz:

\$500,000 Street and Park Road Bonds, dated July 1, 1922, payable July 1, 1932, and bearing interest at the rate of 4½% per annum, payable semi-annually on January 1st and July 1st.

\$500,000 School Bonds, dated July 1st, 1922, payable July 1st, 1956 and bearing interest at the rate of 4½% per annum, payable semi-annually on January 1st and July 1st.

\$500,000 Water Works Bonds, dated July 1st, 1922, payable July 1st, 1956 and bearing interest at the rate of 4½% per annum, payable semi-annually on January 1st and July 1st.

\$250,000 Gas Works Bonds dated July 1st, 1922, payable July 1st, 1956, and bearing interest at the rate of 4½% per annum, payable semi-annually on January 1st and July 1st.

All of the Bonds will be of the denomination of \$1000 each and in coupon form, payable to bearer, with the privilege of registration as to principal only or as to both principal and interest. Principal and interest will be payable at the office of the City Comptroller or (unless the bonds be registered) at the office of the fiscal agent of the City of Richmond in the City of New York.

Bids should be enclosed in a sealed envelope marked "Proposal for Bonds" and addressed to H. C. Cofer, City Comptroller, Room 103, City Hall, and must be accompanied with a certified check upon an incorporated bank or trust company for 1½% of the face amount of the Bonds bid for. For further information apply to the Comptroller.

The right is reserved to reject any and all bids.

The successful bidder will be furnished with the opinion of Messrs. Reed, Dougherty and Hoyt, of New York City, that the bonds are valid and binding obligations of the City of Richmond. The bonds will be prepared under the supervision of the United States Mortgage and Trust Company, of New York City, which will certify as to the genuineness of the signatures of the City Officials and the seal impressed thereon.

BARTON H. GRUNDY,
Chairman, Committee on Finance.

Bids close June 24, 1922.

Two Bridges

Williamstown, Ky.

Sealed proposals will be received by the Fiscal Court of Grant County at the office of E. E. Roland, County Clerk, Williamstown, Ky., on Saturday, June 24, 1922, until 2 o'clock, P. M., for the construction of two bridges in Grant County: One on the Williamstown and Cynthiana pike across Fork Lick Creek, to be one hundred and twenty (120 ft.) feet long; and the other, on the Jonesville and Elliston turnpike, across Eagle Creek, to be three hundred (300 ft.) feet long.

Said proposals will be made in accordance with plans and specifications on file in the office of the Commissioner of Public Roads at Frankfort, Ky., and in the office of the County Clerk of Grant County at Williamstown, Ky.

Bids on bridge to include the cost of both super-structure and sub-structure for a 15-ton capacity bridge with a 16-ft. roadway.

Bids will be considered on both reinforced concrete construction and steel construction. Plans and specifications, other than those above-mentioned, when approved by the Grant County Fiscal Court, will be considered in letting the contract for the construction of said bridges.

A certified check for 5% of the amount of bid submitted, payable to the Treasurer of Grant County, shall be filed with each bid, which check shall be forfeited as liquidated damages if the successful bidder fails to enter into contract and give satisfactory bond. Checks of unsuccessful bidders will be promptly returned.

The right is reserved to reject any and all bids.

E. E. ROLAND, County Clerk,
Grant County, Ky.